



SATURDAY, MARCH 6, 1875.

Worn Steel Rail.

The engraving herewith represents a section of a steel rail laid down in 1865 on the single main track in Clark street, Chicago, where nearly all the trains of the Chicago, Rock Island & Pacific and the Lake Shore & Michigan Southern railroads passed over it, and where engines were constantly switching. In the same position the iron rails were changed as often as once in six months; or, in other words, the steel rails have outworn sixteen iron rails. The wear of the steel rail is indicated by the dotted lines in the head. The engineer who sent the section writes that, so far as he knew, none of the lot of rails to which this belonged had failed. They were furnished by Messrs. Naylor & Co., of New York.

Contributions.

English Opinion of American Railroad Practice.

ENGINEERING OFFICE, No. 63 Pine street, New York, March 1, 1875.

TO THE EDITOR OF THE RAILROAD GAZETTE:

I notice in the last issue of your valuable journal some extracts from the very interesting paper of C. D. and F. Fox read before the Institution of Civil Engineers of England, of the "Pennsylvania Railway and American Railway Construction," also the discussion on this paper. I am sorry I was not present when this paper was discussed, as some of the gentlemen who took part in the discussion were laboring under mistaken views as to American railway construction. I beg that you will allow me space to correct a few points in which they are in error, and confirm certain points in the paper of the Messrs. Fox which the engineers in England must have heard with incredulity.

The most important feature in the paper brought to the notice of the Institution is the matter of chilled cast-iron wheels, and their merits compared with the steel-tired wheels, now in general use in England. Having used all classes of English wheels, and also American chilled cast wheels, on the railways in South America, I have had a fair chance to compare the merits of the different kinds, and long since came to the conclusion that the chilled cast wheels as made in America of the best charcoal chilling iron were the safest under all conditions of climate, speed, rough road, etc., and also much the most economical as regards first cost and endurance of any wheels made anywhere. I think this conclusion is pretty well proved by the adoption of the chilled cast-iron wheel on the great railways in Canada, where they have not, as is well known, used in all cases the best that are made. Another proof I found in Russia, where Mr. Winans told me that he could find no wheels to stand that terrible climate and the speed of forty miles an hour of the Nicolas Railway (St. Petersburg to Moscow) but the chilled cast wheels. Mr. Whistler told me they had on that railway cast wheels of Salisbury iron that had been in use for fifteen years. In 1855 and '56 I built a railway in Peru, at Arica, for an English company. The whole rolling stock except engines was on chilled cast-iron wheels. At the time of the great earthquake of August, 1868, when all their rolling stock (except one train out on the road) was swept into the sea by the "tidal wave," there had not been a single new wheel put on the road.

The rolling stock of the Southern Railway of Chile, another railway built under my direction in 1858 and '59, was all on chilled cast-iron wheels, except three sample cars obtained from England. One of the employees coming from there in 1869 told me that all the wheels I put on the road eleven years previous were still in use; that some flat places had been worn on the "treads" by severe braking, but that not one had been taken out. They were all of Salisbury iron. This same man told me that he laid the track of the Tongoi Railway in Chile, and wore out every wheel on the road before the track was laid. These wheels were cast chilled wheels made by "Gans" in Hungary, and were considered the best chilled cast wheels made in Europe. I have the pieces of one of them in my office: the chilling is only about one-sixteenth deep.

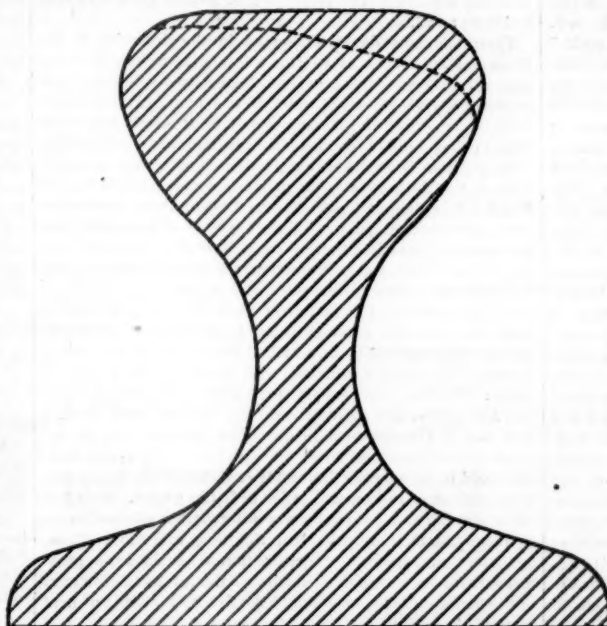
Mr. F. Trevelthick, once Mechanical Engineer of the Grand Trunk Railway of Canada, told me that when he left there he went to Mr. Locke, then President of the Institution of Civil Engineers in England, and brought to his notice the great merits and economy of the chilled cast-iron American wheels, but Mr. Locke did not see it, or could not put faith in what appeared to be an absurdity. In 1866 I brought the merits of the chilled cast wheels to the notice of some of the engineers in England. I had a set of these wheels carried to the North London Railway and one of them broken up to show the strength, the depth of chill, and quality of iron. It took 320 blows of two stout smiths, each with a 28-pound sledge, to break the first piece from this wheel, and as many more to break up the whole wheel from the boss. All present expressed surprise at the wonderful toughness of the iron. The two first smiths brought out to do the pounding laughed when they heard it was cast iron, and said they would soon make the pieces fly; but they had to give it up, fagged out, and the perspiration pouring down their cheeks. Two others were called, and they would have given it up but for the encouragement I gave them and the promise of a guinea when they got the first piece out. The only objection to the use of

these disc wheels on that road that I ever heard of was that there were no holes in them and that they could not "sprag" them coming down steep inclines by running a rail through them!!! I had not one cent of interest in these wheels or any foundry or iron. I was merely trying to introduce a great economy on the railways of England, believing then, as I do now, that the progress of this age depends in part on the cost of transportation of a ton a mile, and that every economy introduced in any railway system added something to that progress. Finding that all I said was listened to but created no faith, I gave up the attempt to introduce the chilled cast-iron wheel into England. Now the subject comes up again, and the Messrs. Fox go much farther in their praise of chilled cast wheels than I ever went, for they say that they can run 100,000 miles and can wear out at least three steel-tired wheels. They would be a great economy if they wore out one steel-tired wheel, for the cast wheels cost £4 and the steel wheels £10 each. Taking the statement of the Messrs. Fox to be true, let us see what the saving would be in a year to the London & Northwestern Railway by the use of the chilled cast wheels instead of the steel-tired wheels.

The returns to Parliament for the year 1873 shows the rolling stock of the London & Northwestern Railroad to be as follows:

Locomotives.....	2,680
Passenger carriages and vans.....	4,745
Goods wagons of all kinds.....	38,218

The locomotives averaged 15,415 miles run. The passenger cars and vans are estimated to run 4,000 miles a month, the goods wagons say 1,000 miles a month. For brevity we will assume all of them to have four wheels each, including tenders of locomotives, and call the rolling stock 2,000 locomotives, 4,000 carriages and vans, and 38,000 wagons.



WORN STEEL RAIL.

To wear out one set of chilled wheels, the life being 100,000 miles—

The locomotives would, at 15,000 miles a year, run 6½ years.

The passenger carriages and vans, at 4,000 miles a month, 2 1-12 years.

The goods wagons, at 1,000 miles a month, 8½ years.

The wear of the steel-tired wheels would, according to the Messrs. Fox, be only one-third of the times mentioned above.

The cost of the chilled wheels for one year would be as follows:

8,000 wheels in 2,000 locomotive tenders at £4 per wheel =	£32,000
6 2-3 years	
16,000 wheels in 4,000 carriages and vans, at £4 per wheel, =	£64,000
2 1-12 years	
182,000 wheels in 38,000 wagons, at £4 per wheel, =	£728,000
8½ years	
Total one year.....	£824,000

The cost of the steel-tired wheels for one year would be as follows:

8,000 wheels in 2,000 locomotive tenders, at £10 per wheel =	£80,000
2 2-3 years	
16,000 wheels in 4,000 carriages and vans, at £10 per wheel =	£160,000
2 5-6 years	
182,000 wheels in 38,000 wagons, at £10 per wheel =	£1,820,000
2 7-9 years	
Total for one year.....	£2,060,000

Deduct cost of cast chilled wheels..... £824,000

Saving in one year..... £1,236,000

From the above, taking the Messrs. Fox's figures and data to be true, the saving by using the chilled cast wheels would appear to be £585,816 sterling on this great railway for one year, to say nothing of the chilled cast wheel being a much safer wheel than the steel-tired wheel. I am not prepared to back up the Messrs. Fox in the assertion that one chilled wheel will out-

last at least three steel-tired wheels: that the wheel is a safe wheel, and that when made of Salisbury iron it will have a life of 100,000 miles or more, I know to be a fact. I have travelled many thousand miles in trains having chilled cast wheels, but to this day I have never seen a wheel broken while running, or have I ever heard of a wheel made of Salisbury iron breaking while running. They certainly have a duty to perform in this country and Canada, which for severity of climate in Winter and for rough tracks on the breaking up of the frost in the Spring is utterly unknown in England. Some years since Mr. W. A. Robinson, the English mechanical engineer of the Great Western Railway of Canada, put the life of the chilled cast-iron wheels at 160,000 miles. In a letter now in my possession, dated August 9, 1859, written by Alex. M. Ross, Chief Engineer Grand Trunk Railway, he says: "Our experience in cast and wrought-iron wheels has induced our giving a decided preference to the former. I have myself been instrumental to the introduction of the English pattern in wheels, and after two or three years' trials have been obliged to abandon them altogether." It is rather singular to see such prominent men as I have mentioned vouching for the merits of the chilled cast wheels and asserting more in their favor than the Americans claim, and this, too, through a number of years (for the great merits of the chilled cast wheel is not a new thing), and yet to find that there is not a single engineer in England willing or disposed to even try them on goods cars, and test their economy and safety. The wheel interest in England is too powerful to allow any foreign wheel, or iron to make a wheel, to be introduced there, and unless the Institution of Civil Engineers take up the matter and force it on the attention of the railway interests, and prove all the facts connected with it, this great railway economy cannot and will not be introduced there. I have

in the above notes estimated the goods cars of the London & Northwestern Railway to run 1,000 miles a month, and the passenger cars to run 4,000 miles a month. I might mention in connection with this that the Pullman palace cars running on chilled cast wheels between New York and Chicago, a distance of about 1,000 miles, are run through without rest, and often at speeds of 40 to 50 miles an hour. They make 12,000 miles a month. I have never heard of an accident to any of these cars occasioned by the breaking or failure of any of their wheels. This is probably the severest duty performed by cars on any railway in the world, and made particularly so by the terrible snow storms and low temperatures that occur in this country and Canada. To make assurance doubly sure in the use of the chilled wheels in this northern climate, they are made to weigh 525 pounds; but in more moderate climates, where ordinary gradients prevail, I have found wheels of 38 inches weighing 480 pounds to answer all requirements of speed, safety and endurance. Of course I allude to wheels made of well known brands of iron by well known makers of standing and reputation—men who never make cheap wheels—wheels that are in the end the very dearest that can be bought.

Any one wishing to inform himself on the difference in cast wheels can find some valuable data in the recent report of Capt. Tyler on the Erie Railway. He there shows that wheels that are probably bought for ten per cent. less than the price of the best have only a life of 6 per cent. of the best. Surely there is no economy in purchasing this class of wheels, and yet many railway companies do purchase them, or more properly speaking, some ignorant director, wishing to assist a friend in the cheap-wheel business, forces a contract on his railway and not only saddles his company with a sure expenditure, but also with an unreliable and dangerous wheel.

My present impression is that there is not a country in the world where the people are so thoroughly swindled in railway matters by directors as these United States. This is likely to continue until the American Society of Civil Engineers become as powerful and influential as the Institution of Civil Engineers in England; then the days of chicanery and charlatanism will cease—it will be known who are engineers and who are not, and directors will be taught not to meddle with matters they know nothing about.

The Messrs. Fox allude to "snow fences" as a matter first introduced by Mr. Carl Pihl, in Norway. I beg to state that I have built snow fences in this country nearly thirty years since, and previous to that Major Whistler built probably the first that ever were built, on the Western Railroad between Boston and Albany.

Mr. Webb, in the discussion, refers to the tensile strength of 90,000 lbs. of the steel used in American locomotive boilers and fire-boxes, and said he was satisfied with 65,000 lbs. I am astonished at this, coming from Mr. Webb. I think that an engineer should never be satisfied, but always aim at getting better and better; that if we can get plates that stand 90,000 lbs. we should experiment and try to get 100,000 lbs.

Mr. Webb was under the impression "that a great deal of difficulty in connection with the use of steel tyres in America would be overcome if the outer rail was elevated on curves." This is a singular remark coming from Mr. Webb, who has been in and traveled through this country. There is probably no country in the world where the matter of compensating centrifugal force with the attraction of gravitation has been more thoroughly studied and experimented on than in the United States; there is no country that in the early stages of railway building required to know as much on this subject, for no other in the first two decades of the railway era introduced curves of so small radii. It was not long after the experiments of de Pambour and the publication of his formula in reference to the elevation of the outside rail on curves that the engineers in this country found his formula insufficient on curves of short radii. John Randall, who was one of the first railway engineers of this country, a man of great mathe-

matical talent, and who was probably the most fanatically accurate man in running lines and laying out curves that ever existed as a railway engineer, made some elaborate experiments and deductions from them in reference to elevating the outside rail. If a tenth of his experiments and his clever mechanical devices for obtaining mathematical accuracy in laying out curves and operating them were related, he would at the present day be considered a scientific fanatic. It was he that laid out the city of New York, and used glass rods to do much of the horizontal measurement; a finer and more accurate piece of city surveying does not exist. I might mention that the accurate tables we now have of expansion and contraction of metals due to temperature, and which are of so much service to engineers, did not exist in those days. The matter of compensating centrifugal force with the attraction of gravitation at different speeds received much attention from Robert L. Stevens, during the construction of the Camden & Amboy Railway, of which he was the head and front. He was a man of superior mechanical ability. It is a great loss to science and the engineering world that he died without leaving a written record of his many clever mechanical devices, to show how far he was in advance of the age in which he lived. It was he that designed and had rolled in England in 1830 the first flat-footed rail, the rail that is now adopted and in use in every country in the world, except England, and known as the Vignoles rail.

Another American engineer that paid much attention and devoted much brain work to compensating centrifugal force and attraction of gravitation, by elevating the outside rail on curves of railways, was Mr. Whipple, who has long been celebrated in connection with designs for iron bridges, and who is the father of the present system of truss-iron girder bridges. In the early stages of railway building I think about 1834, Mr. Whipple made an abstruse calculation on this matter of railway curves and elevation of outside rail. He calculated the power exerted by the "earth" to keep the "moon" in its orbit, and then applied it to a railway curve. My own practice has been to nearly double the elevation resulting from de Pambour's formula for speeds of 20 to 30 miles an hour, and I never found that it was in excess of what was required. To lay the sharp curves on our mountain tracks without elevating the outside rail, and then come down the mountain tracks at 40 to 45 miles an hour, as is often done, would soon bring track and train to grief. Anyone who has ever been whirled down the mountain side on any of the railways crossing the Allegheny range and not noticed the inclination of the car body resulting from elevation of outside rail must have been asleep or deep in the contemplation of some abstruse problem not connected with railway curves. I might mention in connection with this that there is not a railway in the United States (and there are many with 400 and 500 foot radius) where it has been found necessary to tie the rails together by iron bolts, as was done by Mr. Galbraith on the Ilfracombe Railway to prevent the engines from "bursting the rails out of gauge," the minimum radius being 500 feet. This practice of tying the rails together by bolts on curves was also found necessary on the difficult parts of the Mexican Railway, which are worked by those famous engines which Mr. Fairlie stands sponsor for, and which work around sharp curves without any flange frictions, the wear of the flanges of the steel tyres being only $\frac{1}{8}$ of an inch in running 9,000 miles!!! as shown by a tracing given to me by the Locomotive Superintendent of that railway, he being one of the sponsor's own friends.

Mr. Galbraith remarked that the "permanent way of the Pennsylvania Railway was about the best in America, but compared with an English line it is rather weak." As I have heard this remark so often in connection with American railways, I should like to ask a few questions, and have my ignorance enlightened. In the first place I should like to know if the term "permanent way," as applied to any railway, even English railways, is not a misnomer. What is there permanent about it? Certainly not the rails, which are pounded to pieces, even in England, with a rapidity quite shocking to stockholders' nerves; nor the sleepers, which never are at rest; nor the chairs, wedges, joints, switches, anything; all, all, come to grief quicker than almost anything else.

Engineering for January 29 of this year has a graphic editorial headed "Permanent Way," which very strikingly shows how permanent permanent way is, even in England, where it requires as much care, nursing and constant attention as a sucking babe. I should like to know in what particular the permanent way of the Pennsylvania Railway is "about the best in America, and in what it is better than many other railways in the populated part of the country (of course we leave out of this question the railways built out into the wilderness among "wild cats" and by "wild cat" engineers and financiers). I would then like to know how this best railway in America is "rather weak when compared with an English line." Is it in the rails? They are of the best steel, 67 pounds to the yard, thoroughly fish-plated. If I am not mistaken in my recollection of things I have seen and read, there are many railways in England that have lighter rails, and some that have not yet enjoyed the blessings of steel, and fortunately some that have not enjoyed the blessings of steel to the same extent that it has been enjoyed here. As to sleepers, we use many more to the mile than are used in England or anywhere else. Providence has bestowed on this nation great wealth in timber, and we, like very prodigals, are wasting it in every conceivable way, even to cutting down vast forests and burning the wood to get rid of it; also stuffing more than is needed under the rails, and leaving our grandchildren to some day rail at their ancestors for wasting their patrimony. As to chairs and fastenings, that is in a measure a matter of taste. We prefer a wrought iron chair; the English a cast iron. In the matter of wheels, we and our progenitors reverse this; we prefer a chair that a sudden blow will not break; the English prefer a chair that will break and does break in hundreds and thousands all over the "United Kingdom,"

else things have changed greatly since I walked over portions of their most noted lines, and saw small mountains of broken chairs at stations; as to wooden wedges, we tried them thirty years ago and found there were not enough men in the country to keep them in their places. England has the advantage of us in this particular. She has a surplus population, and is rich; we are poor: she can afford to keep an army of men at work driving wedges, from morning to night; we cannot.

As to ballast, I suppose that a cubic yard of our gravel or broken stone cannot be much inferior to the same used in England, and that when we use as many yards to the mile, it ought to do us the same good service, except when "Jack Frost" comes and meddles with the thing, as he does, and to an extent not known in England. As to switches and points, we claim to be in advance of all other countries. Who says nay to that?

I have now got through with dissecting permanent way; but before we leave the track, I wish to mention (in hopes that it will catch the eye of some of our railway superintendents) one feature of American railways in which we are deficient, abominably deficient; it is drainage—a most important item. In studying and practicing railway economy, in this particular the English are our masters. I think I can point out some places, even on the great New York Central Railroad, where one dollar spent judiciously in ditching would save two dollars in "surfacing track," to say nothing of the wear and tear of machinery and rails due to a rough track. A true track (not a perfect track, for there is no such thing, any more than there is a perfect government in the world) is the life and soul of a railway. I sometimes think, when I see the water standing on each side of an American railway not far below the level of the rails, that it is due to the blood of our Dutch ancestors (who were said to be web-footed), and now probably like to see the semblance of a canal when they take a ride on a rail.

There was some doubt expressed in the discussion on the Messrs. Fox's paper as to the water evaporated, it being asserted that an engine on the Pennsylvania Railway had evaporated 2,400 gallons of water in one hour. This requires some explanation: in speaking of gallons, it should have been stated what kind of gallons. In England engineers understand a gallon to be the imperial gallon of 10 pounds of water, while in the United States the gallon in common use is the old Winchester gallon of 8 pounds. So 2,400 of these gallons are only 1,920 imperial gallons. Then again, as all locomotive engines pass more or less water through the cylinders that is not in a state of vapor, and as the amount not vaporized depends on the kind and quality of the water, and as one water "primes" more than another, this matter of water used in an hour is an indefinite quantity, as far as its being vaporized is concerned, unless some apparatus is attached to determine the extent to which the steam is saturated with water not in a state of vapor. Finding, some twenty-three years since, that the London & Northwestern Railway could not use the water from a well sunk at Camdentown through the London clay, on account of its "priming," I had it analyzed by Professor Hoffman, and to my surprise I found it contained only five grains of impurities in an imperial gallon of 70,000 grains. This fact of its priming and its purity was afterward confirmed to me by Robert Stephenson, who had this deep well sunk. Then, again, as the amount of evaporation depends in a great measure on the intensity of the fire, as the intensity grows out of the amount of oxygen given to the fire, as the units of heat generated depend on the percentage of carbonic acid and carbonic oxide generated in the process of combustion, and as it is usual in the United States to give a more fierce, powerful and sharp blast to the fire than is used in England, it will be found that American engines generally can and do evaporate more water in an hour than is usual in England. This does not in all cases produce a greater economy in fuel, for when the boiler is small and it is forced by the blast to its greatest effort, the ebullition is so great and rapid that water is carried off with the vapor, and with the water goes some of the heat, which does no duty in the cylinder. This is a purely philosophic question. I think that we who are interested in steam and its results would be better employed in devoting more of our time and attention to the conversion of coal into heat than spending it in devices connected with feed-water heating, and increased fire surfaces. The amount of coal that we waste in generating steam-power can be better understood when it is known that there are about ten millions of foot-pounds of energy or force stored up in one pound of pure carbon, this is equivalent to an hourly "horse-power" in about one-fifth of a pound of good coal; and to get this hourly "horse-power" we burn in our best locomotives not less than four pounds of best coal.

Much has been said and published in various discussions on railway economy, when the roads of the United States and those of England were compared, as to the ratio of expenses to receipts; and as the average of this in England is much lower than it is in the United States, it would appear at first glance and to the unprofessional mind that the American railway must be deficient in build and equipment and in the economy of management. It must be very clear to any expert in railway economy that there can be no just comparison between the railways of any two countries as to the ratio of expenses to receipts unless the conditions are the same. These conditions are grades, curves, climate, length of road, amount and kind of traffic, prices charged for carrying, cost of labor, fuel, metals and other materials. Surely no rational person would expect the ratio of expenses to receipts to be as low in the United States as in England, when it is known that our tariff of charges is lower, and the prices we pay for labor, fuel and metals (the three great items of expense) are higher. The governing point in railways as regards their success, viewing them as commercial enterprises, is the dividends they pay. The Pennsylvania Railway has paid in dividends 234 per cent, in 20 years

on its entire cost. This certainly is a very good result, and particularly so when it is considered that it has three great competitors for the same business, which are sure to force down and keep down all charges on goods and passengers.

Looking at railways in a political and national point of view, their value to the nation as machines connected with the development of its wealth and progress is measured by the cost of carrying a ton of goods and a passenger a mile. The lower this can be made, the greater their benefit, and the more extended the range of their influence and operations. This should be the point of strife between nations: how low can you bring the cost of carrying? I am inclined to think that an intelligent person who will examine this matter, with the vast amount of data at his command, will find that, considering the price we pay for labor, metals and fuel, no other country has solved this problem with the same gratifying results that we have in America.

The vast business of the Pennsylvania Railway, including the passage of the Alleghany Mountains, for 1874, shows that it moved nearly ten millions of tons of minerals and merchandise at a cost of 0.719 of a cent per ton per mile and carried more than six millions of passengers at a cost of 1.60 cents per passenger per mile. Can any other road in the world out of the United States show such results, or anything near them, after equating the prices paid for labor and metals, to say nothing of the severe climate, the steep grades and the sharp curves of this railway which cannot be encountered without extra cost.

It was remarked in this discussion on the Messrs. Fox's paper that the railways in America were not fenced and seemed to have no road-bridges. This remark was made by a gentleman who probably had never been in America, or even made any diligent inquiry on these points. The fencing of the railway lines in America is not a matter we can boast much about, but still there are structures that pass for fences and should not be entirely ignored. The same may be said of road-bridges.

Mr. C. D. Fox, in closing the discussion on his paper, "hoped that English engineers would be awakened to increased interest in the public works of the United States, and that they would visit the United States in greater numbers, where they would find their professional brethren not only most courteous, but able and enterprising in the highest degree."

I take this occasion to thank the Messrs. Fox for their very interesting paper and for their complimentary remarks, and can assure them that their recommendation to their fellow engineers to visit America shall be duly honored.

W. W. EVANS.

General Railroad News.

ELECTIONS AND APPOINTMENTS.

Missouri River, Fort Scott & Gulf.—Mr. H. C. Sprague has been appointed Superintendent of Telegraph for this road and the Leavenworth, Lawrence & Galveston, in place of E. B. McDill, deceased. His office is at Kansas City, Mo.

St. Louis, Lawrence & Western.—Mr. Charles N. Hart, has been appointed Superintendent of Telegraph, with office at Lawrence, Kan.

Toledo, Wabash & Western.—Hon. Jacob D. Cox, President of the company, has been appointed Receiver.

Cleveland, Mount Vernon & Delaware.—At the annual meeting in Mount Vernon, O., February 24, the following directors were chosen: Isaac Harpster, Millersburg, O.; M. White, Gambier, O.; Wm. M. Orr, Orrville, O.; Samuel Israel, Charles Cooper, Mount Vernon, O.; J. R. Swan, Columbus, O.; Thomas D. Messler, Wm. Thaw, Pittsburgh, Pa.; George B. Roberts, Philadelphia. At a subsequent meeting of the directors, Thomas D. Messler, was re-elected President, and Joseph H. Davis, Secretary.

Western Railroad of Buenos Ayres.—Mr. C. Carranza, late Charge d'Affaires of the Argentine Republic in the United States, has been appointed Agent for this company and has his office at No. 26 William street, New York.

Memphis & Charleston.—Col. C. M. McGhee has been appointed General Manager in place of Captain Joseph Jaques, resigned.

Michigan Central.—Mr. S. C. Annabell, late of the Chicago, Burlington & Quincy, has been appointed Car Accountant.

Cleveland, Columbus, Cincinnati & Indianapolis.—At the annual meeting in Cleveland, O., March 3, the ticket representing the Erie and Atlantic & Great Western interest was elected, the new directors being as follows: H. B. Huribart, J. H. Devereux, H. J. Jewett, L. M. Hubby, Parker Handy, R. M. Shoemaker, Judge Burke, Hermann Baltzer, C. P. Leland, Stillman Witt, — Brown, J. H. Barnett and Oscar Townsend.

Burlington, Cedar Rapids & Minnesota.—The reorganized board of directors is as follows: S. P. Wisner, George Douglas, W. W. Walker, A. S. Belt, A. H. Spangler, Cedar Rapids, Ia.; T. W. Barbydt, Burlington, Ia.; James Blair, Scranton, Pa.; D. C. Blair, Belvidere, N. J.; C. E. Vail, John I. Blair, Blairtown, N. J.; Moses Taylor, Wm. E. Dodge, A. B. Crane, New York. The only members of the old board remaining are Messrs. Walker, Belt and Barbydt. The officers under the new organization are: President, John I. Blair; Vice-President, S. P. Wisner; General Superintendent and Treasurer, W. W. Walker; Treasurer, D. W. C. Bowley; General Freight and Ticket Agent, C. J. Ives; General Solicitor, A. S. Belt; Auditor and Paymaster, J. C. Brookmire; Assistant General Superintendent, W. H. Pettibone; Assistant Treasurer, H. E. Stibbe; Assistant Secretary, C. E. Vail; Assistant General Freight Agent, A. L. Mohler; Assistant General Ticket Agent, B. F. Mills. The new appointments are those of Blair, Wisner, Mohler, Mills, and Walker as Treasurer. The office of General Manager is abolished.

Cincinnati Southern.—The Superior Court, in which the appointment is vested by law, has appointed W. W. Scarborough a trustee in place of William Hooper resigned. Mr. Scarborough is President of the Cincinnati Gas Company, and is a director in the Marietta & Cincinnati and Ohio & Mississippi companies.

East River Bridge.—The new board of directors of this company is as follows: W. C. Wickham, Mayor of New York, ex-officio; A. H. Green, Comptroller of New York, ex-officio; Jas. McLean, James M. Motley, John Reilly, Lloyd Aspinwall, Charles J. Canda, F. B. Thurber, Abram S. Hewitt, Lawrence J. Turner, New York; A. M. Hunter, Mayor of Brooklyn, ex-officio; S. S. Powell, Comptroller, ex-officio; Henry C. Murphy, David M.

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Stone, Thomas Carroll, Wm. C. Kingsley, J. S. T. Stranahan, William Marshall, George M. Nichols, Samuel Booth, of Brooklyn. The new board of directors has chosen the following officers: President, Henry C. Murphy; Vice-President, Abram S. Hewitt; Secretary, O. P. Quintard; Treasurer pro tem., John A. Prentice.

Atlantic & Gulf.—At the annual meeting in Savannah, Feb. 10, 29,913 shares were voted on and the old board of directors was re-elected as follows: R. D. Arnold, Wm. Duncan, C. E. Groover, Alfred Haywood, Henry Lathrop, Edward Lovell, J. M. B. Lovell, D. G. Purse, John Screven, Savannah, Ga.; R. H. Hardaway, A. T. McIntyre, W. J. Young, Thomas County, Ga.; W. O. Fleming, C. J. Munnerlyn, Decatur County, Ga. The Board unanimously re-elected John Screven President.

Bergen County.—This new company was organized under the general law at a meeting held in Passaic, N. J., February 27, by the election of the following directors: Hugh J. Jewett, Homer Hamadell, Cortlandt Parker, John Y. Dater, A. R. Macdonough, Wm. Butler Duncan, Isaiah Rynders, R. A. Terhune, G. D. Bogart, B. W. Spencer, Marshall O. Roberts, John Taylor Johnston, E. A. Walton. The board subsequently elected Hon. H. J. Jewett, President; B. W. Spencer, Vice-President; W. P. Shearman, Treasurer; A. R. Macdonough, Secretary. The directors are all connected with the Erie or are local property owners.

Atchison, Topeka & Santa Fe.—A. A. Egbert has been appointed Assistant Superintendent, with office at Newton, Kan. Mr. J. D. Gunn has been appointed Master of Transportation, and will have charge of movements of cars and dispatching of trains, with office at Topeka, Kan. All requisitions for cars will be made on Mr. Gunn.

Geneva, Ithaca & Athens.—At a meeting of the directors in Ithaca, N. Y., February 26, the resignations of eight members of the board were received and Robert A. Packer, Henry Packer, Charles E. Hartshorne, Robert H. Sayre, James Stillman, William Elliot and T. Delafield were chosen directors, one vacancy being left. The first four of the new directors represented the Lehigh Valley and the other three the Cayuga Railroad Company. The old members remaining in the board are John Gauntlett, John A. Nichols, F. W. Prince, W. W. Wright and William Hall.

Atlantic & Great Western.—Mr. J. H. Holway has been appointed Purchasing Agent vice R. B. Browne, resigned; appointment to take effect February 1, 1875. The purchasing agency having been united with the general store, Mr. Holway's title will be Purchasing Agent and Storekeeper.

Michigan Central.—Mr. George Hancock having resigned, Mr. J. K. Dutton succeeds him as Freight Auditor, his appointment taking effect March 1. He will continue to perform the duties of statistic clerk, which, as a separate office, is abolished.

Lehigh Coal & Navigation Company.—At the annual meeting in Philadelphia, February 23, E. W. Clark was re-elected President, with the following board of managers: Alexander Biddle, Francis R. Cope, Philip C. Garrett, Fisher Hazard, John Losenring, Charles Parish, Samuel Thomas, Charles Wheeler, George Whitney, James M. Wilcox, Francis C. Yarnall.

Chicago, Burlington & Quincy.—At the annual meeting in Chicago, February 24, it was voted to increase the number of directors from 12 to 13, and the following board was elected: Sidney Bartlett, John C. Green, Erasmus Corning, J. W. Brooks, John M. Forbes, Nathaniel Thayer, John N. A. Griswold, C. D. Colton, James M. Walker, W. J. Rotch, J. A. Clifford, Charles A. Paine, John N. Denison. The new directors are Messrs. Rotch, Clifford and Paine, who replace James F. Joy and John A. Burnham. The new directors were all on the opposition or stockholder's ticket, and all the directors on that ticket were elected except one, Mr. T. J. Coolidge, who was defeated by Mr. J. N. Denison, long Chairman of the board. On the contested names the opposition ticket received about 80,000 votes, against 67,000 for the other.

Mr. J. F. Goddard has been appointed Assistant General Freight Agent in place of E. S. Washburn, who has resigned to take the local freight agency of the Michigan Central in Chicago.

Alabama & Chattanooga.—A Montgomery (Ala.) dispatch says: "Fred. Wolff has been appointed assignee of this road, vice Bailey, resigned."

Philadelphia & Reading Coal & Iron Company.—Appointments have been made as follows: T. M. Richards, General Coal Agent; S. C. Harris, Assistant Coal Agent; R. G. Feltus, General Order Clerk; F. B. Kaercher, Auditor of the Company; Charles Weston, General Agent at Port Richmond, and John L. Howard, Superintendent of Steam Coaliers. The duties heretofore performed by the Vice-Presidents, relative to the management of the company's estate, the erections of improvements and the working and operating of the mines, have been transferred to William Lorenz, Chief Engineer.

Louisville, New Albany & St. Louis.—At the annual meeting in New Albany, Ind., February 24, the following directors were chosen: A. Bradley, J. J. Brown, Alexander Downing, M. McDonald, D. W. Voyles, Sherman Frisbie, New Albany; H. F. Visman, C. B. Long, W. F. Barrett, Louisville, Ky.; Robert Bell, Mount Carmel, Ill.

Northern Central.—At the annual meeting in Baltimore, February 25, the old board of directors was re-elected, as follows: M. B. Gensfelder, R. Oppenheimer, M. B. Sellers, S. M. Shoemaker, George Small, Baltimore; Wayne McVeagh, Harrisburg, Pa.; H. P. Borie, J. C. Bullitt, S. M. Felton, J. N. Hutchinson, Winter Morris, Thomas A. Scott, Philadelphia. The board subsequently re-elected Thomas A. Scott, President; A. J. Cassatt, Vice-President; Secretary, R. S. Hollins; Assistant Secretary, Stephen W. White; General Manager, Frank Thomson.

Delaware, Lackawanna & Western.—A corrected list of the officers chosen for the ensuing year is as follows: Samuel Sloan, President; Andrew J. Odell, Secretary; Frederick H. Gibbons, Treasurer.

Mr. W. F. Hallstead has been appointed Superintendent of the Utica Division, with Mr. W. H. Christman as Assistant Superintendent.

Keokuk Bridge.—Mr. A. L. Griffin, Assistant Superintendent of the Missouri, Iowa & Nebraska road, has been appointed General Manager and Superintendent of the Keokuk Bridge Company.

Keokuk & Kansas City.—Mr. S. H. Melvin, of Springfield, Ill., has been re-elected President.

Memphis & Charleston.—The Governor of Tennessee has appointed Col. James B. Mosely, of Fayette, and Jerome Hill, of Shelby, State directors for the ensuing year.

Huntingdon & Broad Top.—The new board of directors has re-elected J. P. Aertson Secretary and Treasurer; George F. Gage, Superintendent; John Fulton, Mining Engineer.

Continental Fast Freight Line.—Mr. H. S. Fraser has been appointed Agent at Indianapolis, in place of Wm. H. Parmalee, resigned.

Joint Iron & Steel Company.—At a meeting held February 14, John G. Scott, of St. Louis, F. E. Hinckley, A. B. Meeker and C. H. Carter, of Chicago, were chosen to fill vacancies made by the resignation of Thomas Blakey, N. E. Platt and two other directors. The board then elected John G. Scott, President, in place of O. B. Filley; C. H. Carter, Treasurer,

and H. E. Bigelow, Secretary. The board is now the same as before the recent election.

Waterville & Hancover.—The organization has been completed by the election of the following officers: President, Col. D. E. Ballard, Ballard's Falls, Kan.; Treasurer, George Storch, Atchison, Kan.; Secretary, Dr. F. Damour, Waterville, Kan.

Paducah & Memphis.—Mr. Estine Norton has been re-elected President. Mr. M. Burke, Superintendent of the Mississippi and Tennessee, has been appointed Superintendent of this road also.

Railroad Purchasing Agent's Association.—The officers are as follows: President, G. C. Breed, Louisville & Nashville; First Vice-President, Wm. S. Cuddy, St. Louis, Iron Mountain & Southern; Second Vice-President, J. T. Sterling, Toledo, Wabash & Western; Secretary and Treasurer, John B. Gallaway, Memphis & Charleston; Executive Committee, J. W. Morse, Indianapolis & St. Louis, E. C. Becker, St. Paul & Pacific, E. V. Cherry, Indianapolis, Cincinnati & Lafayette.

Memphis & Little Rock.—At the annual meeting in Hopefield, Ark., Feb. 16, the following directors were chosen: W. L. Farrington, Samuel Tato, Gen. Colton Green, Memphis, Tenn.; H. L. Brinkley, A. H. Garland, Little Rock, Ark. The only new director is Gen. Green, who replaces Mr. A. McDonald.

Rensselaer & Saratoga.—Mr. S. R. Voorhees has been appointed Superintendent in place of H. B. Smith, resigned.

Yardmasters' National Association.—This society was organized at Indianapolis last week, and the following officers chosen: President, Byron Kring, New York Central & Hudson River; First Vice-President, James Williams, Atlantic & Pacific; Second Vice-President, A. Scott, Jeffersonville, Madison & Indianapolis; Grand Secretary and Treasurer, H. McPeck, Cincinnati, Hamilton & Indianapolis, Indianapolis, Ind. Executive Committee, Frank Reynolds, John Carey, Cleveland, Columbus, Cincinnati & Indianapolis; E. A. Cooper, Indianapolis, Bloomington & Western; John Field, Jeffersonville, Madison & Indianapolis; Walter Brown, Ohio & Mississippi.

Milwaukee & Dubuque.—H. M. Benjamin is President, W. C. Williams Attorney and I. Holden Stearns Chief Engineer of this new company. The offices are in Milwaukee, Wis.

TRAFFIC AND EARNINGS.

—The shipments of through freight eastward over the Central Pacific in January, 1875, were: San Francisco, 2,167 tons; interior points, 587 tons; total, 2,754 tons, or 278 car loads total, January, 1874, 4,872 tons, decrease, 2,118 tons, or 43 per cent. The principal items of freight in 1875 were: barley, 1,445 tons; wool, 415 tons; tea, 214 tons; hides, 110 tons.

—The earnings of the Midland Railway of Canada for January were: 1875, \$13,947; 1874, \$12,874; increase, \$1,073, or 8 per cent.

—The earnings of the Dorchester & Delaware road for the year ending October 31 were:

Earnings (\$640 per mile).....	\$21,117 83
Expenses (108.36 per cent.).....	22 249 09
Deficiency.....	\$1,131 21

The road carried during the year 12,033 passengers and 6,988 tons of freight.

—The earnings of the Cumberland Valley Railroad for the year ending September 30 were:

1874.	1873.	Decrease.	P. c.
Earnings.....	\$873,310 05	\$814,184 99	10,874 9
Expenses.....	274,260 87	282,542 44	8,281 57
Net earnings.....	\$599,049 18	\$531,642 55	\$67,406 63

Earnings per mile, 1874, \$6,418; 1873, \$8,300. Per cent. of expenses, 1874, 45.5; 1873, 46.0.

—The earnings of the Great Western Railway of Canada for the week ending January 29 were: 1875, \$17,823; 1874, \$20,170; decrease, \$2,347, or 11 per cent.

—The earnings of the Grand Trunk Railway for the week ending January 30 were: 1875, \$35,700; 1874, \$32,800; increase, \$2,900, or 8 per cent.

—The earnings of the Atlantic & Gulf Railroad for the year ending December 31 were:

1874.	1873.	Decrease.	P. c.
Earnings.....	\$1,032,256 16	\$1,053,947 12	\$21,690 96
Expenses.....	746,620 68	750,247 22	3,626 54
Net earnings.....	\$285,635 48	\$303,699 90	\$18,064 42

Per cent. of expenses, 1874, 72.3; 1873, 74.6. Earnings per mile, 1874, \$2,983; 1873, \$2,907.

—The earnings of the Louisville, Cincinnati & Lexington road for December were:

Earnings (\$47.5 per mile).....	\$93,906 24
Expenses (\$18.5 per cent.).....	76,616 41
Net earnings (\$29 per mile).....	\$17,289 83

—The earnings of the Great Western Railway of Canada for the week ending February 5 were: 1875, \$16,124; 1874, \$22,012; decrease, \$5,888, or 26 per cent.

—The earnings of the Grand Trunk Railway for the week ending February 6 were: 1875, \$34,500; 1874, \$37,000; decrease, \$2,500, or 6 per cent.

—Cotton receipts in the South for the crop year from Sept. 1 to Feb. 26 were 2,914,258 bales in 1874-75, against 3,050,966 the previous year, showing a decrease of 136,708 bales, or 4 per cent. For the past six years the receipts for the corresponding period have been:

1870.....	2,115,539	1873.....	2,715,815
1871.....	2,787,780	1874.....	3,050,966
1872.....	2,166,987	1875.....	2,914,258

These figures, which are from the Commercial and Financial Chronicle, show that this year's receipts were exceeded only by last year's. Low middling at the close of the period this year was worth 15 to 16 cents per pound in New York; last year from 15 to 15 1/2 cents. The cotton crop then ought to afford nearly as great a movement of traffic, both in the product and in the goods purchased with it, as last year.

—The shipments of petroleum from Baltimore for export from January 1 to February 21 were: 1875, 41,854 barrels; 1874, 2,552; increase, 39,302 barrels, or 1,540 per cent. For the year ending December 31 the exports were: 1874, 165,137; 1873, 73,262; increase, 91,875 barrels, or 125.4 per cent. Vessels with a total capacity of 68,000 barrels are now under charter to load petroleum from Baltimore.

—Foreign exports of hog products in the United States for the week ending Feb. 20 were 14,560,818 lbs. this year, and 19,917,770 last, a decrease of about 27 per cent.

The number of hogs packed in the West for the packing year from Nov. 1 to Feb. 20 is reported at 5,484,100 this year and 5,873,844 last, the increase being a little more than two per cent. Chicago has packed three times as many as Cincinnati (which stands second) and 29 per cent. of the total. The value of these hogs delivered to the packer was probably more than \$1,000,000, and as much or nearly as much as the entire shipments of last year's Western wheat crop.

—The earnings of the St. Louis, Iron Mountain & Southern

Railway for the second week in February were: 1875, \$81,294; 1874, \$60,427; increase, \$20,867, or 34 per cent.

—Flour and grain receipts for the crop year from Aug. 1 to Feb. 20, at the six Western Lake ports, St. Louis and Peoria, were:

1874-75.....	Flour.....	Wheat.....	Corn.....	Oats.....	Barley.....
1873-74.....	3,114,078	40,522,788	25,115,434	13,837,705	4,945,897
	3,646,379	54,761,187	32,009,069	15,317,063	6,037,570
Decrease.....	532,301	14,708,349	6,893,635	1,479,348	1,091,673
Per cent. of dec.....	16.6	26.9	21.5	9.1	18.0

Atlantic seaboard receipts of the same staples, from Jan. 1 to Feb. 20, were:

1875.....	Flour.....	Wheat.....	Corn.....	Oats.....	Barley.....
1874.....	1,116,166	2,087,948	8,223,268	1,869,554	246,637
	1,601,749	6,836,130	5,181,122	2,624,917	394,247

There is here an increase of 60 per cent. in corn, but a decrease in all other staples, amounting to 70 per cent. in wheat and 33 per cent. in flour.

—The earnings of the following railroads for the year 1874 have been reported, in addition to those already given:

1874.	1873.	Inc.	Dec.	P. c.
Atlantic & Gulf.....	\$1,032,256	\$1,005,947	\$26,309	2 1/2
Belvidere Delaware.....	1,215,648	1,148,228	67,420	5 3/4
Central of Iowa.....	642,699	615,061	27,637	4 1/2
Central of New Jersey.....	8,609,276	8,881,366	272,090	3 1/16
Chicago & Alton.....	5,126,228	5,497,541	371,313	6 3/4
Chicago, Burlington & Quincy.....	11,645,318	11,405,226	240,092	2 1/4
Northern Central.....	4,676,500	5,031,366	354,866	7 1/2
Pennsylvania, Main Line.....	20,290,331	22,308,482	2,000,151	9 1/2
Do., Branches.....	2,349,040	2,577,527	228,487	9 1/2
United New Jersey.....	8,700,969	8,516,740	184,229	2 1/4

—The earnings of the Northern Central Railway for the year 1874 were:

Earnings (\$14.73 per mile).....	\$4,676,600 45
Expenses (72.35 per cent.).....	3,389,563 95
Net earnings (\$4.07 per mile).....	\$1,287,036 50

As compared with 1873, there was a decrease of \$354,865.15, or 7 per cent., in gross earnings; a decrease of \$387,881.30, or 10.3 per cent., in expenses; an increase of \$33,016.15, or 2.6 per cent., in net earnings.

—The earnings of the Chicago, Burlington & Quincy Railroad for 1874 were:

Earnings (\$9.184 per mile).....	\$11,645,317 52
Expenses (55.93 per cent.).....	6,513,512 39
Net earnings (\$4.047 per mile).....	\$5,131,805 13

This is an increase of \$2,091.60, or 2.1 per cent., in gross earnings; an increase of \$78,744.57, or 1.2 per cent., in expenses; an increase of \$161,347.08, or 3.2 per cent., in net earnings.

—The earnings of the Chicago & Alton Railroad for the year ending December 31 were:

1874.	1873.	Decrease.	P. c.
Earnings.....	\$5,126,228 08	\$5,497,540 77	\$371,312 74
Expenses.....	2,901,351 00	3,376,254 87	474,903 81
Net earnings.....	\$2,224,876 97	\$2,121,285 90	\$103,591 07
Earnings per mile, 1874, \$7,809; 1873, \$8,400. Per cent. of expenses, 1874, 56.60; 1873, 61.41.			

—Receipts of flour in barrels and grain in bushels for the week ending February 20 at the six western lake ports, St. Louis and Peoria, were:

1875.....	Flour.....	Wheat.....	Corn.....	Oats.....	Barley.....
1874.....	63,761	426,704	594,351	241,676	44,537
	130,764	1,506,443	853,934	386,866	109,138
Decrease.....	67,503	880,139	259,583	145,200	124,601
Per cent. of decrease.....	51	67	30	37 1/2	73 1/2

The shipments for the same week were:

1875.....	Flour.....	Wheat.....	Corn.....	Oats.....	Barley.....
1874.....	69,220	238,229	331,865	152,949	45,453
	118,237	708,700	170,159	110,054	86,206

Though the decrease is large in almost every staple except corn, in the aggregate these shipments were not exceeded in any of the four years preceding 1874. At the close of this week there was in store in Chicago 5,875,588 bushels of grain; in Milwaukee, 2,073,988; in St. Louis, 1,056,415; in Peoria, 387,167, and in Detroit, 268,761 bushels, nearly all of which will go eastward.

—Petroleum exports of the United States from Jan. 1 to Feb. 20 were about 20,000,000 gallons this year against 20,000,000 last. The total decrease is 30 per cent., but Baltimore increased 760 per cent.

—The earnings and expenses of the Marietta & Cincinnati Railroad for 1874 were:

Earnings (\$7.373 per mile).....	\$2,004,516 64
Expenses (75.02 per cent.).....	1,571,389 69
Net earnings (\$1.816 per mile).....	\$433,126 95

As compared with 1873 there was a decrease of \$82,364.09, or 1.5 per cent. in earnings; a decrease of \$122,975.82, or 7.3 per cent. in expenses; an increase of \$90,611.73, or 20.9 per cent. in net earnings.

—The receipts of grain at Baltimore for February were as follows:

1875, bushels.....	Wheat.....	Corn.....	Oats.....	Rye.....	Total.....
1874.....	77,877	707,280	40,679	5,873	831,409
	189,415	959,782	66,468	20,250	1,235,915
Decrease.....	111,538	252,502	26,789	14,377	405,506
Per cent. of decrease.....	68 1/2	36 1/2	66 1/2	70 1/2	52 1/2

The receipts of flour for the month were: 1875, 101,340 barrels; 1874, 137,450; decrease, 36,110 barrels, or 26 per cent.

—The report of the California Pacific Railroad Company to the Secretary of State of California gives the earnings for 1874 as follows:

Earnings (\$7.122 per mile).....	\$1,054,066 14
Expenses (113.47 per cent.).....	1,196,066 72
Deficit.....	\$141,999 58

The road carried 192,803 tons of freight during the year.

—Coal receipts at Pittsburgh for 1874 were as follows:

By rail.....	Coal, tons.....	Coke, tons.....	Total.....
By slackwater navigation.....	1,824,847	1,189,681	3,014,528
	2,196,153	32,675	2,228,828
Totals.....	4,021,000	1,222,356	5,243,356

The shipments were by rail, 1,846,839; by river, 1,935,142; total, 3,781,981 tons.

—The earnings of the Intercolonial Railway for 1874 were:

Earnings (\$2.635 per mile).....	\$893,430
Operating expenses (145.68 per cent.).....	1,301,550
Deficiency.....	\$408,120

The road carried 626,362 passengers and 388,852 tons of freight. The gross earnings show an increase of \$189,972, or 27 per cent., over 1873.

—The earnings of the Denver & Rio Grande Railway (main line) for the third week in February were:

inordinately long, and wore out the endurance of the audience before the reading was finished and the discussion reached. Any committee can, we believe, safely assume that if their reports contain more than 5,000 words they are too long, and that if they are reduced to 3,000 it would be much better. Any one who will be careful to observe will also notice how utterly useless it is to read off statistics from tables. It is quite impossible for any ordinary hearer to derive any benefit from such reading. Tables and statistics, unless of the very simplest kind, should, in nearly all cases, be placed in appendices to reports to be printed for reference, and the conclusions then which are drawn therefrom alone be given and read with the report.

It is believed, too, that the comments on the reports would be very much fuller and more valuable if the committees should select three or four persons to open the discussion after their reports are read. Persons could thus be selected and called upon to speak who have some special knowledge of the subject presented, and the debate would thus have a much better direction given to it in the beginning than when reliance is placed entirely on volunteers. It is true of nearly all deliberative bodies, and in fact of the world generally, that a large proportion of those persons who are most worth hearing on any subject are inclined to be modest and retiring, and can only be induced by solicitation to do any talking in public. Such persons could be called out by the plan suggested, and at least greater variety be given to the debate. This method of conducting discussions has been employed very successfully in various scientific and other societies. It also has the merit that it obviates two evils of an opposite character—it first prevents the discussions from falling exclusively into the hands, or rather mouths, of a certain number of talking men to the exclusion of others. Whenever this occurs, the silent members soon grow weary, and ultimately resent the monopoly of the debates. Every effort should therefore be made to call out all the different sides of current opinion, if it is intelligent and honest. The other evil referred to is the very reverse of the above: it is the hesitation of the people in an audience to begin to talk about a subject in which they feel an unusual interest. It has frequently been the case in the annual conventions of the Association we are writing about that a report was read, on a subject in which all the members felt the deepest interest, and about which there was the greatest diversity of opinion, that no one was ready after the reading to begin a discussion, and the whole subject was passed over without debate. The plan proposed to remedy these evils is worth a trial and could do no harm if it did not succeed.

We have heretofore suggested the holding of what they call in Europe a *conversazione* during one evening of the session of the convention. At all of the annual meetings there are a large number of manufacturers, dealers and inventors of railroad machinery, equipment and material present, who come in part to bring their wares or ideas to the notice of the members of the Association. Far from being an evil, we believe it is desirable that this practice should be encouraged, and the attendance of as many as possible of such persons as have anything valuable to show should be secured. It needs, however, to be distinctly recognized, and thus encouraged but at the same time have such limitations and restrictions placed upon it as will prevent that class of persons from interfering with the deliberations of the meetings. By securing some suitable room for one evening, and inviting all persons to exhibit what they want to bring to the notice of the members of the Association, and then providing music, lunch and the other accessories of a social assemblage, it would have the character of a very pleasant annual reunion, and also give occasion to the members to becoming acquainted with those residents of the place in which the meetings are held, who are interested in various indirect ways in the occupation in which master mechanics are engaged. It would also afford an opportunity to the feminine element which always forms the outskirts of these annual meetings, to take part in such an assemblage. We could of course write some very gallant things about the added grace, etc. etc., which the wives and daughters would contribute; but we forbear.

We have not yet learned that a committee of arrangements has been appointed to prepare for the next meeting, but as soon as such a body is constituted we commend the *conversazione*—we wish there was a suitable English word for it—to their consideration.

Owing to the cosmopolitan character of New York, the attendance should be, and we believe will be, much greater at the next annual meeting than it ever has been before. There never was a time when it was necessary to study economy in railroad management more closely than it is now, and we believe it is now receiving more attention than ever before. If therefore the Master Mechanics' Association can do anything to promote economy and reduce the cost of operating their departments of railroads, there is little reason to fear that it will not receive the support of its members and their employers.

RAILROAD EARNINGS, JANUARY, 1875.

Name of Road.	Mileage.					Earnings.					Earnings per mile.				
	1875.	1874.	In.	Dec.	Per c.	1875.	1874.	Increase.	Decrease.	Per c.	1875.	1874.	In.	Dec.	Per c.
Burlington, Cedar Rapids & Minn.	424	424	.....	.....	.....	\$105,436	\$108,303	.....	\$2,867	2%	\$249	\$255	.....	\$6	2%
Central Pacific.....	1,293	1,260	33	.....	2%	890,000	848,558	\$41,442	.....	4%	688	673	\$15	.....	2%
Chesapeake & Ohio.....	430	430	.....	.....	.....	87,676	82,915	4,761	.....	5%	204	193	11	.....	5%
Denver & Rio Grande.....	118	118	.....	.....	.....	20,801	20,636	165	.....	0%	175	175	1	.....	0%
Indianapolis, Bloomington & W.	344	344	.....	.....	.....	115,343	151,795	.....	35,453	23%	338	441	.....	103	23%
Indianapolis, Cin. & Lafayette.....	179	179	.....	.....	.....	135,008	145,267	.....	10,259	7%	754	812	.....	58	7%
International & Great Northern	458	389	76	.....	20	122,575	131,110	.....	8,535	6%	268	343	.....	75	21%
Kansas Pacific.....	761	761	.....	.....	.....	162,737	170,349	.....	7,612	4%	214	224	.....	10	4%
Missouri, Kansas & Texas.....	786	786	.....	.....	.....	216,000	266,333	.....	50,333	19%	275	339	.....	64	19%
Ohio & Mississippi.....	393	393	.....	.....	.....	249,250	268,298	.....	19,048	7%	634	653	.....	19	3%
St. Louis, Al. & T. H., Main Line	266	266	.....	.....	.....	77,676	90,724	.....	13,048	17%	293	375	.....	82	21%
St. Louis, Al. & T. H., Branches	71	71	.....	.....	.....	57,131	38,606	18,525	.....	48%	805	544	261	.....	48%
St. Louis, Iron Mountain & So.	685	685	.....	.....	.....	266,395	250,074	16,321	.....	6%	389	375	14	.....	3%
St. Paul & Sioux City.....	245	245	.....	.....	.....	33,881	42,385	.....	8,505	25%	138	173	.....	35	20%
Toledo, Peoria & Warsaw.....	227	227	.....	.....	.....	71,437	96,794	.....	25,357	35%	315	408	.....	93	23%
Totals.....	6,680	6,562	118	10	1%	\$2,612,544	\$2,721,161	\$108,617	.....	4%	\$391	\$415	.....	\$24	5%
Total increase or decrease.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Railroad Reports.

The "Railroad Man's Almanac," if that calendar has a duly qualified prognosticator, will say opposite the dates of the latter part of February and the beginning of March, "About this time look out for reports." Just now we are overwhelmed with them. Many of the most important companies make out their reports for the calendar year, and it takes about two months to complete them. More of them than formerly, we are inclined to think, make their fiscal year correspond with the calendar year; but however that may be, the avalanche of reports that descends upon the railroad newspaper at this time of year has been greatly increased of late by the increase in the number of State railroad reports. There are now a great many of these documents, many of them very long ones, and all worthy of examination at least, and of comment probably; and some offering much matter which should be copied for the consideration of the railroad world. We have within a few days of each other, this year, the very interesting report of the Massachusetts Commissioners, the voluminous first report of the Wisconsin Commissioners which deserves special attention because it is their first report, and because of the state of things existing in Wisconsin. In one week we have reports of the Pennsylvania Railroad Company, with its system of roads extensive enough for a kingdom, of the Chicago, Burlington & Quincy, the Chicago & Alton and the Central of New Jersey—all reports of important companies and deserving careful analysis as well as a summarizing of the facts contained in them. So far as the *Railroad Gazette* is concerned, there are not days enough in the week nor pages enough in the paper to do anything like prompt justice to these, and the order in which they are taken up and the labor and space given to each frequently depend upon accident and circumstances over which we have little control. We say this because some of our readers may think that we have passed over what is to them the most important railroad news of the week because we are slow in reaching some of these documents, but perhaps we also ought to apologize to those who feel that the paper is pretty much all reports now, and that they afford very dry nourishment. If dry, it is very solid in most cases, and there are not often so many of them. Some of these, however, are among the most important contributions towards a knowledge of the existing state of railroad business in this country that exist anywhere. Railroad men should remember, when these papers seem dull, that it is in annual reports that we get, aside from records of facts, expressions of opinion from the ablest railroad men in the country. The railroad presidents and managers in this country almost never write books, and they do not very often write for newspapers, at least over their own names; but in their annual reports to the owners of the property which they manage they do write, one year with another, a great deal, and often explain their plans or defend their policies at considerable length and with great ability. Writing as they do over their own names and addressing those whom they serve directly and who have a pecuniary interest in their ability, they are almost sure to take great pains with whatever they do say in their reports, and this makes them so much the better worth reading by the railroad man who is not connected with the road reported on. Altogether there is a large and rich railroad literature contained in railroad reports, besides the history of railroad business given in the tables of figures. They often contain also, doubtless, a great deal of rubbish; but on the whole they express the ideas of railroad managers, good, bad and indifferent, and they form almost the only record of those ideas.

The Chicago & Alton Report.

The Chicago & Alton Company, whose road more than almost any other in Illinois, except perhaps the Illinois Central, has had its traffic disturbed by the great number of new railroads constructed in Central Illinois during the past six years, was able in 1874, in spite of the great dullness of business and a considerable decrease in traffic, to increase its net earnings by nearly 4 per cent. As has been the case with most companies whose profits did not decrease that year, the addition is due wholly to a decrease in working expenses, made possible to a slight extent only by the decrease in the volume of traffic, but chiefly by the much lower prices of materials and labor, and to some extent with this company, and a much larger extent with some others, by the reduction in the cost of maintaining track caused by the use of steel rails where the traffic is heaviest. An oppressive law has made it impossible to work with the greatest economy possible, for the company is absolutely forbidden to accept work at an excep-

tionally low price which it could do with scarcely any addition to its expenses. Not many roads in the country can show expenses per train-mile lower than the \$1.00 which the average Chicago & Alton train cost in 1874, said average train being a heavy one, by the way.

Record of New Railroad Construction.

This number of the *Railroad Gazette* has information of the laying of track on new railroads, as follows:

Cairo & St. Louis.—Completed by the laying of 4 miles of track. It is of 3-foot gauge.

Utah Southern.—Extended from Santaquin south 4 miles to York, Utah, completing the road.

Utah Western.—Extended west 2 miles to Lake Point, Utah. It is of 3-foot gauge.

This is a total of 10 miles of new railroad.

THE CHICAGO, BURLINGTON & QUINCY ELECTION resulted, substantially, in the success of the Forbes-Griswold party, who, however, failed to defeat Mr. John A. Denison, long the Chairman of the board. One director being added to the board, and eleven of the old directors being re-elected, of course there can be no change of policy which the old board could not have effected. The retirement of Mr. Joy, however, after twenty-four years of service, most of the time as the company's executive, during nearly all of which time he has perhaps commanded the confidence of New England railroad investors more than any other one man, both for judgment in directing investments and for integrity as an administrator, is a notable event; and it is lamentable that this retirement should be the result of dissatisfaction with his conduct and, to some extent, of distrust of his motives, though the shareholders' meeting passed unanimously a resolution expressing "their undiminished regard and thanks for the past services" of Mr. Joy and the other retiring director. Mr. Joy made an excellent little speech on retiring, in which he said that he would probably never meet with the shareholders again, and it has been reported that he intends to give up the management of the Michigan Central at the close of the present fiscal year.

THE WISCONSIN RAILROAD LAW proposed by the Railroad Commissioners seems to meet with but little favor in the Wisconsin Legislature. A substitute has been proposed which is substantially a re-enactment of the Potter law with some stricter provisions added. An effort was being made to modify some of its features, and at our later dates the bill was still under discussion.

The Commissioners' bill is favored by the railroad companies, the representatives of five of the leading ones having united in a card to the members of the Legislature, in which they say that though they would prefer the unconditional repeal of the Potter law, and think that some of the provisions of the Commissioners' bill are oppressive, yet they have concluded that the companies could live under it, while they have no hope that a more favorable bill would pass.

THE INDIANA LEGISLATURE has been considering some project for restrictive railroad laws, that State being now somewhat distinguished in the Northwest for the absence of such laws. On the 15th of last month the committees of its two houses gave a hearing to representatives of the railroads of the State. At this meeting Mr. M. E. Ingalls, President of the Indianapolis, Cincinnati & Lafayette Railroad Company, made a speech of some length and submitted a draft for a bill which is precisely like that establishing the Massachusetts Railroad Commission. Mr. Ingalls' speech was full of information and unselfish in tone, and if the Legislature adopts his suggestions, it will do well.

THE JANUARY REPORTS OF EARNINGS are so extremely meagre as to have little value except so far as the separate roads reporting are concerned. Only fifteen roads report, and these are mostly not very important ones, and their total length forms only about one-eleventh of the mileage of the country. Those reporting have average earnings of \$391 per mile for the month, against \$415 last year, showing a decrease of 5% per cent. The February report is likely to make a much worse appearance, and if the net earnings were given instead of the gross in some cases a minus quantity would have to be reported, doubtless.

THE MINNESOTA RAILROAD LAW, which is almost identical with that of Illinois, giving a board of commissioners authority to fix schedules of "reasonable maximum rates," has been under consideration in the lower house of the Minnesota Legislature, which, on the 27th ult., passed by a vote of 67 to 28 a bill repealing the present law and substituting

for the present law one establishing a single commissioner instead of three, with advisory powers only, probably much like the law in force until repealed by the one now in force about a year ago. Whether the Senate and the Governor are favorably inclined to the change is not reported, but the very large majority in the House would indicate that the repeal is popular.

Transportation in Congress.

In the Senate Feb. 25th:

Mr. Windom from the Committee on Transportation Routes called up a resolution instructing the Committee on Commerce to insert in the River and Harbor Appropriation Bill sums to be employed in a thorough improvement of the Mississippi, the construction of the Fox & Wisconsin Canal, the Hennepin Canal and the speedy completion of the improvements between lakes Superior and Huron, Huron and Erie, and the thorough and systematic improvement of the Ohio, Kanawha, and Tennessee rivers. This was opposed by Mr. Thurman, of Ohio, and the morning hour having expired, Mr. Windom announced that he would ask the Senate to consider and dispose of the resolution before the close of the session.

Mr. West, of Louisiana, from the Committee on Transportation Routes, submitted an amendment to the River and Harbor and Appropriation bill the House bill for the improvement of the mouth of the Mississippi River, known as the Eads bill, with amendments which reduce the amount from \$8,000,000 to \$5,250,000, select the South Pass for improvement instead of the Southwest Pass, provides that the work shall be under the superintendence of the Secretary of War, and that the depth of the channel contracted for shall be required to be maintained permanently in advance of payment. Ordered to be printed.

In the House March 1:

Mr. Williams, of Michigan, from the Committee on the Pacific Railroads, reported a bill specifying in great detail the points in regard to which the Pacific railroad companies are to be required to make returns to the Government of receipts from traffic, rates, etc.

In the House, on the 2d:

Mr. Orr, of Iowa, from the Committee on Public Lands, moved to suspend the rules and pass the bill giving the consent and approval of Congress to the Wisconsin Central Railroad Company to build that portion of its road between Portage City and Stevens Point on the line adopted by the act of the Wisconsin Legislature of February 10, 1875, instead of on the line adopted by the act of April 9, 1866. After a brief discussion the motion was agreed to and the bill passed.

General Railroad News.

ANNUAL REPORTS.

Pennsylvania Railroad.

The report for the year 1874 covers almost identically the same property as that for 1873, the only change being an increase of eight miles in the branches of the main line. The report gives details only for the roads worked directly by the Pennsylvania Railroad Company, which are:

Main Line, Philadelphia to Pittsburgh	358 miles.
Branches of Main Line	519 "
United Railroads of New Jersey	276 "
Belvidere Delaware and Flemington Branch	80 "
Delaware & Raritan Canal	61 "
Philadelphia & Erie Railroad	288 "

Total 1,582 miles.

The road owned is the 358 miles of Main Line and 98 miles of the branches in Pennsylvania. All the rest is leased. Most of the lines in Pennsylvania, however, the company controls through the ownership of a majority of their shares.

The earnings and expenses of all the above lines were:

GENERAL SUMMARY.				
Earnings.				
	1874.	1873.	Inc. or Dec.	P. c.
General freights	\$24,715,418 15	\$26,987,820 76	Dec. \$2,272,402 61	8.4
Passengers	9,259,076 43	9,657,105 26	Dec. 398,028 83	4.1
Emigrant passen-				
gers	229,892 13	230,529 49	Dec. 637 36	0.3
Express	638,022 24	787,269 77	Dec. 149,247 53	10.6
Mails	309,646 39	244,305 96	Inc. 65,340 43	26.7
Miscellaneous	865,252 70	506,007 55	Inc. 359,245 15	71.1
Canal earnings	1,320,519 23	1,590,100 12	Dec. 269,580 89	17.0
Total	\$37,886,427 27	\$39,983,138 91	Dec. \$2,596,711 64	6.5
Expenses.				
Conducting transportation	\$8,618,842 32	\$10,019,264 99	Dec. \$1,400,422 67	14.0
Motive power	8,999,146 37	7,083,978 84	Dec. 1,915,167 53	27.0
Maintenance of cars	1,943,106 80	2,833,092 54	Dec. 889,985 74	45.8
Maintenance of road	8,173,434 31	6,057,165 03	Dec. 2,116,269 28	34.6
General expenses	509,802 77	478,246 20	Inc. 31,556 57	6.6
Canal expenses	766,416 64	883,921 46	Dec. 117,504 82	15.0
Total	\$23,011,749 21	\$27,355,088 16	Dec. \$4,343,338 95	15.9
Net earnings	\$14,874,678 06	\$12,628,100 75	Inc. 2,246,577 31	17.8

*Emigrant receipts are given for the New Jersey roads for 1874 only. Expenses for 1873 include \$571,450.90 paid for rent of branches of Main Line.

Corrected summary (excluding all rentals from expenses).

	1874.	1873.	Inc. or Dec.	P. c.
Gross earnings	\$37,886,427.27	\$39,983,138.91	Dec. \$2,596,711.64	6.5
Working expenses	23,011,749.21	26,783,537.36	Dec. 3,771,888.15	14.1
Net earnings	\$14,874,678.06	\$13,199,551.55	Inc. \$1,675,126.51	12.7
Rentals paid	2,054,715.25	1,322,517.27	Inc. 732,197.98	55.4
Net to Pennsylvania R. R. Co.	\$12,819,962.81	\$11,877,034.28	Inc. \$942,928.53	7.9
The rentals above do not include those for the United Railroads of New Jersey. They were:				
	1874.	1873.		
Philadelphia & Erie	\$1,068,796.27	\$428,756.96		
Belvidere Delaware	442,000.11	322,910.11		
Branches of Main Line	543,928.87	571,480.80		

The total earnings and expenses of the lines west of Pittsburgh, worked by the Pennsylvania Company, or controlled through other organizations in the interests of the Pennsylvania Railroad Company were:

Gross earnings	\$25,551,923.99
Working expenses	16,410,896.08
Net earnings	\$9,141,027.91
Deduct rentals and interest	8,296,689.43
Net profit in 1874	\$844,338.48

SUMMARY OF LINES EAST AND WEST OF PITTSBURGH.

Gross earnings, 1874	\$62,938,351.26
Working expenses (62.64 per cent.)	39,422,645.29
Net earnings	\$23,515,705.97

The following table gives details of the receipts and ex-

penses of the Main Line and Branches (Philadelphia to Pittsburgh with the branches, except the Philadelphia & Erie), the United Railroads of New Jersey, the Belvidere Delaware and its Flemington Branch, and the Philadelphia & Erie, with the increase and decrease in each item as compared with 1873. The Main Line was 358 miles long both years; its branches 511 miles in 1873 and 519 in 1874; the New Jersey roads were 276 miles, the Belvidere Delaware and its Flemington Branch 80 miles, and the Philadelphia & Erie 288 miles long both years:

	Philadelphia & Erie.	Belvidere Delaware.	United Railroads of New Jersey.	Main Line and Branches.
Increase or Decrease.				
Gross earnings	\$5,772,813 26	\$1,031,502 43	\$3,715,097 78	\$17,597,504 40
Expenses	5,572,813 26	1,031,502 43	4,427,176 14	17,597,504 40
Net earnings	\$200,000 00	\$0 00	\$287,921 64	\$0 00
Net earnings per mile	\$0.558 38	\$0.000 00	\$0.661 88	\$0.000 00
Expenses per mile	\$0.558 38	\$0.000 00	\$1.611 88	\$0.500 00
Net earnings per ton	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per passenger	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per freight	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per mail	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per miscellaneous	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per canal	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per total	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per ton	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per passenger	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per freight	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per mail	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per miscellaneous	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per canal	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00
Net earnings per total	\$0.000 00	\$0.000 00	\$0.000 00	\$0.000 00

* Compared with same items in 1873.

† Whole percentage of expenses in 1873.

The returns from the branches of the Main Line were:

	1874. (519 miles.)	1873. (511 miles.)
Earnings	\$2,343,040.47	\$2,577,527.22
Expenses and rents	2,291,969.76	2,660,097.10
Net profit	111,070.71	17,430.12
The net earnings of the Pennsylvania Railroad between Philadelphia and Pittsburgh and branches, as already stated, were:		
To which add interest and dividends received from investments, etc.	\$4,365,015 96	
Less interest paid on bonds of the company, floating debt, etc.	2,514,459 86	1,790,556 10
From which deduct two semi-annual dividends of 5 per cent. or 10 per cent. per annum.	\$6,779,688 12	
State of Harrisburg & Lancaster Railroad.	132,572 94	
Rent taxes	615,725 83	
Installments paid to the State of Pennsylvania, on account of principal and interest of purchase of the Main Line of Public Works, which has thus been reduced from \$7,500,000, the amount of original purchase, to \$5,201,475.41, all of which has been paid from the net earnings of the railroad.	460,000 00	7,987,986 80
Leaving a surplus net profit for 1874, of...	\$3,199,493 49	

THE NEW JERSEY LEASE.

The earnings of the Philadelphia & Trenton Railroad and branches, 38 miles, and of the United Railroads of New Jersey and branches, 236 miles, the Belvidere Delaware Railroad, 69 miles, and its Flemington Branch, 12 miles, and of the Delaware & Raritan Canal, 61 miles, including feeder, in 1874, were as follows:

Gross earnings United Railroads of New Jersey Division	\$8,700,969 36
Gross earnings Delaware & Raritan Canal	1,320,519 23
Total	\$10,021,488 59
Gross expenses of United Railroads	\$6,330,933 42
Gross expenses of Delaware & Raritan Canal	768,416 64
Total	7,099,350 06
Net earnings from operation of lines	\$2,923,038 53
Amount received from investments United Railroads	239,614 30
Amount of earnings received from Belvidere Delaware Railroad Company	195,362 62
Total	\$3,358,015 45
Amount paid account of dividends, interest, organizations, etc., United Railroads of New Jersey	3,389,176 45
Loss in operating United Railroads and Canal	\$31,161 00
The net profit of the Pennsylvania Railroad after paying interest and dividends, etc., as before stated, was...	\$3,199,493 49
From which deduct loss on New Jersey railroads	31,161 00
Leaving as surplus and net profit on the whole line from N. Y. to Pittsburgh, after providing for a ten per cent. dividend and interest, etc.	\$3,168,332 49

EARNINGS AND EXPENSES PER UNIT OF TRAFFIC.

The following table shows the average earnings from freight and passenger traffic, and the cost of moving it per net ton and per passenger per mile on each of the railways worked by the Pennsylvania Railroad Company:

NAME OF RAILROAD.	Average cost of transporting each passenger per mile.	Average earnings from each passenger per mile.	Profit on each passenger per mile.	Average cost of transporting each ton of freight per mile.	Average earnings from each ton of freight per mile.	Average profit in transporting each ton of freight per mile.	Length of railroad.
Penn. R.R. and branches	1.60	2.43	0.83	0.719	1.255	0.536	877
New Jersey lines	1.85	2.72	0.87	1.767	2.084	0.317	276
Bel. Delaware Railroad	2.60	2.85	0.25	0.28	1.431	0.603	80
Phila. & Erie Railroad	2.90	3.07	0.17	0.657	0.941	0.284	288

The report says:

"The foregoing statements taken from the records of the company show in the simplest possible form the earnings and expenses of your lines, and the revenues derived from the various roads and interests of your company. The general depression in the business of the country continued during the whole of 1874. The result, as shown upon the traffic of the lines, has been a diminution in the tonnage of the Main Road of 880,372 tons, being a decrease of 8.5 per cent. as compared with the traffic moved in 1873, and a consequent reduction in revenue. Large reductions have, however, been made in the expense of maintaining and operating your lines, thus enabling the Board of Directors to present results which they trust will be satisfactory to every shareholder.

INCOME AND ITS DISPOSITION.

"It will be seen that from the net earnings of the lines owned and operated by your company east of Pittsburgh and Erie, through to New York, including the Delaware & Raritan Canal, and from the income derived from securities and other assets of your company, the total amount, after paying working expenses, that was available for interest, rentals and dividends was \$19,114,670.94, as follows:

Net earnings, Pittsburgh to New York, including Philadelphia & Erie Railroad, Branch Lines, and Delaware & Raritan Canal	\$14,374,078 06
Interest and dividends received from investments, Pennsylvania Railroad Company	4,305,015 96
Interest from investments received with the lease of the United Railroads and Canal of New Jersey	239,614 30
Earnings received from Belvidere Delaware Railroad Company after paying interest, etc.	195,362 62
Total amount available for rentals, interest and dividends	\$19,114,670 94
Out of which have been paid:	
Interest on bonded and floating debt Pennsylvania Railroad Company	\$2,514,459 86
Rental paid Philadelphia & Erie Railroad	1,08,796 27
Rental paid Belvidere Delaware Railroad	442,000 11
Branch roads connected with the Main Line	543,928 87
Rent Harrisburg & Lancaster Railroad	132,572 94
Dividends and interest etc., paid on account of lease of United Railroads and Canal of New Jersey	3,389,176 45
Taxes paid State of Pennsylvania	615,725 83
Paid State of Pennsylvania on account purchase of Main Line	460,000 00
Two semi-annual dividends on Pennsylvania Railroad stock, 5 per cent. each, May and November, 1874	6,779,688 12
Total	\$15,946,338 45

Leaving surplus net profit, as before stated, of... \$3,168,332 49 which has been transferred to profit and loss account. Surplus net profits from the same sources in 1873... \$1,513,077 44 Being an increase over 1873 of... \$1,655,255 05

REMARKS.

Commenting on the earnings and expenses per unit of traffic, the report says:

"These results, in the cost of transportation of freights, will, we think, compare most favorably with those of any line in this country or elsewhere. They are due, first to the large volume of traffic moved, and second to the great economies consequent upon so much of your Main Line being laid with steel rails, the possession of first-class equipment by all your roads, and the general reductions that have taken place in all that constitutes the needful outlays for working expenses, especially in the cost of material and supplies used by your company. It is hoped that with the revival of business, which would give a greatly increased volume of trade, these results may be maintained in the future.

"By reference to the report of the General Manager, it will be found that there had been laid during the year on your Main Line 10,422 tons of steel rails, and on the several branches and sidings 837 tons, all of which have been charged to operating expenses. Up to the 1st of January, 1875, there had been laid in the main tracks of your Main Line, 76,930 tons, or 725 miles of steel rails; in main tracks of branch roads 1,584 tons, and in third and fourth tracks and sidings on your Main Line and Branches 6,887 tons, being a total of 84,791 tons of steel rails now in use. During 1875 there will be laid a sufficient amount in addition to complete the entire double track of your Main Line from Philadelphia to Pittsburgh.

"During the summer of 1875 a new iron double-track bridge will be completed across the Delaware River at Trenton, and also a double roadway with iron superstructure at the same

point. This will add greatly to the facilities of the transportation department.

FREIGHT MOVEMENT.

The total freight traffic carried between Pittsburgh and Philadelphia in 1874 was 9,118,419 tons. The total freight traffic carried between Pittsburgh and Philadelphia in 1873 was 9,998,791 tons.

Showing a decrease in 1874 of 880,372 tons or 8.8 per cent. This decrease has been on westward bound through traffic, and in local traffic both east and west; the through eastward traffic having increased nearly 22 per cent. The United Railroads of New Jersey show an increase in freight tonnage moved of 14.83 per cent., which is mainly due to the large increase in through and local business eastward. The Delaware & Raritan Canal shows a decrease in net earnings of \$154,676 07 caused largely by a falling off in coal, lumber and other heavy traffic, consequent upon the depressed condition of trade. Notwithstanding this, it will be noted that the United Railroads and Canal of New Jersey show very gratifying results as compared with those of 1873, having met every liability under the lease except \$31,161, while in 1873 the net loss under the lease was \$635,639.70.

The passenger traffic of your Main Line shows an average reduction of 1.42 per cent. in the number of miles traveled as compared with 1873, the first-class and emigrant business showing a decrease, and the commutation and local business a gratifying increase. The latter is also the case on the New Jersey Division.

NEW CONSTRUCTION.

The expenditures for construction and equipment on the Main Line between Pittsburgh and New York, in 1874, were \$10,961,555 00. In 1873, were \$10,961,555 00. Showing a reduction of \$7,475,656 67. The advances for construction to Branch and Auxiliary Lines, in 1873, were \$4,580,941 33. In 1874, were \$1,177,696 66. Showing a reduction of \$3,403,244 67.

The estimates for new construction and equipment in 1875 are: Main Line and New Jersey roads \$1,911,800. Completion of Columbia & Port Deposit road, and advance to other branches and auxiliaries 1,283,200. Total \$3,200,000.

The Pennsylvania Canal Company earned \$147,745.20 net in 1874, having suffered a net loss of \$317,396.13 in 1873. The coal properties in which the Pennsylvania is interested earned \$13,769 less in 1874 than in 1873.

FINANCES.

On the completion of the reorganization of the company June 1, 1874, the floating debt was \$6,828,450 00. Of this amount there has been paid during the year 2,688,450 00.

Reducing the same December 31, 1874, to \$4,140,000 00.

It is proposed that the entire floating debt of your company shall be paid off during 1875, by disposing of securities that are no longer of value for the purpose of controlling the roads by which they were issued.

A negotiation under date May 7, 1874, was concluded for the sale of three millions of pounds sterling of the consolidated 6 per cent. bonds of the company for the purpose of providing for the construction expenditures of 1874, meeting the second mortgage bonds maturing March 31, 1875, and other obligations existing at the time of the negotiation. These bonds were recently placed upon the London market, and the whole amount was immediately taken, and the second mortgage bonds are now being paid at par, with accrued interest, to date of presentation.

The dividend scrip issued in December, 1873, maturing March 6, 1875, is also now being paid with its accrued interest to date of presentation.

Under the consolidated mortgage of July 1, 1873, the Board of Directors disposed of \$2,000,000 of bonds in 1873, and of \$3,000,000 in 1874. Of the latter, however, only \$1,000,000 was paid for in 1874, leaving the remaining \$2,000,000 to be paid for during 1875.

The securities owned by the company, the par value of which is \$90,629,085, represent a cost of \$68,542,563.78. Although these securities, if forced on the market, could not be made to yield in the aggregate the amount at which they stand charged, the Board of Directors have preferred to let them remain on the books at their cost, holding the amounts to the credit of the Contingent Fund and Profit and Loss (\$11,021,613) as a margin to cover any possible depreciation in their value in the future. The interest received from these securities during the year 1874 was at the rate of about five per cent. per annum upon their cost, the remainder of the interest account being the amounts accrued on sundry open accounts that were settled during the year.

The item of bills and accounts receivable, of \$25,979,087.14 is the Treasurer's account for 1873, has been reduced to \$11,166,989.99, and the company is now in possession of bonds, stocks, obligations and cash, to represent such reduction.

During the past year the line of railroad extending from Wrightsville to York, thirteen miles, known as the Wrightsville, York & Gettysburg Railroad, has become a part of the property. The capital stock and bonds of the original corporation, all of which belonged to the company by purchase, were canceled and destroyed, and 6,000 shares of the capital stock of the Pennsylvania Railroad Company, amounting at par to \$300,000, were issued in exchange for them, and are now held by the company.

The company having been the owner of eight millions of dollars of preferred stock of the Pennsylvania Company, it was deemed wise by the board to purchase the remaining stock, which had been issued at par to the Union Railroad and Transportation Company, in purchase of their car equipment at its appraised value, an arrangement was finally consummated by which the holders thereof received bonds of the Pittsburgh, Cincinnati & St. Louis Railroad Company in exchange for their stock, par for par. Nearly all these stockholders have accepted this arrangement, and it is presumed the owners of the few shares still outstanding will do so, thus giving the company the entire control of the stock, and placing it in condition to carry out any policy that may be found best for its interests.

THE SARATOGA AGREEMENT.

The report says:

"During the Summer of 1874 a meeting of officers connected with the three trunk lines, the New York Central, the Erie, and the Pennsylvania railroads, and their Western connections, was held at Saratoga with the view of endeavoring to abolish all commissions, agencies, and outside expenses, and thus effect valuable economies for all the lines, and with the further object of establishing a commission to be composed of three gentlemen familiar with railway traffic, but disinterested parties in no way officially connected with either of the companies; the commission to have power to make such moderate rates from time to time as would be reasonable and just to the public, and give in the future equal and uniform rates to every shipper. The commissioners selected for that purpose have promptly performed the duties assigned them, and with strict impartiality as between the parties.

"This arrangement promised good results to both the pub-

lic and the companies. The officers of the Baltimore & Ohio Railroad Company, while declining to name a commissioner and enter into the arrangement, did agree that they would abolish all commissions, drawbacks and agencies of every kind, and that the rates so made from time to time should be thoroughly adhered to by all their officers and agents. With the adoption of this conservative policy there can be no question as to its beneficial results to shippers and transporters; and perhaps no better evidence can be given of the purpose of your company to give its patrons under the commissioners the most complete facilities at low rates than the fact already stated in this report, that its average rate of 1.255 cents per ton per mile for moving traffic in 1874, which included all classes of freight, through and local, east and west, and was much below any previous charge for like services, the average rate on east-bound through freight traffic, which covers the transportation of the produce of the West, including live stock and property of the higher classes, having been but 0.882 of 1 cent per ton per mile.

"Not unlike many other proper reforms, the one referred to has had many difficulties to contend with, and since the beginning of the year some differences have occurred between the Baltimore & Ohio and the other companies. It is to be hoped, however, that with a thorough understanding of everything pertaining to this question, proper results may be arrived at and the companies conduct their business with that harmony which should at all times prevail.

FUTURE POLICY.

"Your company having secured lines and extensive terminal facilities at Philadelphia and New York, and through roads controlled by it at Baltimore and Washington, in the east, and by the control of roads to Erie, Ashtabula and Toledo, on Lake Erie, with good connecting roads working in harmony to Buffalo; and also by the control of lines through the lumber region of Michigan; and in the West having termini at Chicago, St. Louis, Louisville, Cincinnati, Wheeling, and other important commercial centres, with good connections beyond those points, and having also perfected communications with the entire oil region of Pennsylvania, the Connellsville coke region, the city of Cumberland and the Cumberland coal region; and with Frederick and Hagerstown, in Maryland, and Martinsburg, in West Virginia—your Board have concluded to adopt as a general policy that no further extension of lines should be made or obligations be assumed by your company, either by lease or otherwise, except to complete the several small branches and extensions now in progress in Pennsylvania and New Jersey. The best energies of your Board and its officers will hereafter be devoted to the development of the resources of the lines now controlled. They believe these lines have a great future for the shareholders. Your Board have no hesitation in stating that the properties of the company are abundantly able to take care of their obligations and make good results for the stockholders."

Chicago & Alton.

The company's roads are the same as in 1873, including 649.1 miles of road worked, 239.7 miles of which is leased and the rest owned. There is 51½ miles of double track, all on the main line between Chicago & St. Louis, and 97.6 miles of sidings. There has been no change in the amount of rolling stock, which consists of 155 locomotives, 99 passenger-train cars, 2,949 freight-train cars, 6 tool and wrecking, and one pay car. The capital stock also remains unchanged, being \$2,425,400 of preferred and \$8,929,900 of common stock. There is, however, \$1,007,900 of 7 per cent. scrip which will be convertible into stock Sept. 1, 1875. The total funded debt at the close of 1874 was \$7,318,900 in addition to this scrip. All the debt bears 7 per cent. interest except a loan of \$500,000 sterling 6 per cent. negotiated last year. The company has contracted to pay at maturity the 8 per cent. bonds of the Joliet & Chicago leased road, now amounting to \$306,000; but it has also to pay the interest on them by way of rental, and the payment of the principal is equivalent to a permanent reduction of the rental of the most valuable part of its road. The total amount of stock and bonds is now \$19,582,100, against \$18,245,222 the previous year. The property covered by this investment is not only the 960 miles of road owned by the company, but improvements and equipment of the lines held under perpetual leases and the bridge over the Mississippi at Louisiana, estimated as having cost \$4,866,010.19, the money for which has been obtained by the sale of stock at not less than par, and bonds at not less than 94 in any case. If this be subtracted from the total stock and debt, there remains as representing the 960 miles of road owned and its equipment an amount equal to \$40,878 per mile, from one of the best and best equipped single-track railroads in the country.

The work of the year was:

	1874.	1873.	Inc. or Dec.	P. c.
Train mileage.....	3,758,915	3,983,560	Dec. 224,645	5.08
Passengers carried.....	904,233	829,876	Inc. 74,357	8.96
Freight carried, tons.....	1,421,188	1,642,440	Dec. 221,252	15.47
Coal (included above).....	404,329	549,248	Dec. 144,917	36.38

The earnings were:

	1874.	1873.	Inc. or Dec.	P. c.
Passenger.....	\$1,430,350.42	\$1,379,425.71	Inc. \$50,924.71	3.00
Freight.....	3,446,890.91	3,897,461.78	Dec. 450,580.85	11.56
Express.....	101,069.03	98,851.35	Inc. 2,207.68	2.23
Mails.....	109,997.09	77,871.36	Inc. 31,825.67	40.85
Miscellaneous.....	48,240.64	43,930.59	Inc. 4,310.05	10.19
Total.....	\$5,136,238.03	\$5,497,540.77	Dec. \$371,312.74	6.75

The expenses were:

	1874.	1873.	Inc. or Dec.	P. c.
Conducting transportation.....	\$902,693.73	\$999,719.27	Dec. \$97,025.54	19.7
Motive service.....	769,730.36	907,808.95	Dec. 138,078.59	11.9
Maintenance of way.....	781,140.35	869,390.29	Dec. 88,249.94	10.1
Maintenance of cars.....	243,386.96	345,663.97	Dec. 102,277.01	29.6
General expenses.....	162,469.66	132,376.76	Inc. 30,092.90	22.7
Taxes.....	112,000.00	131,595.63	Dec. 19,595.63	7.9
Total.....	\$2,901,351.06	\$3,376,254.87	Dec. \$474,903.81	14.1
Net earnings.....	2,234,876.97	2,121,285.90	Inc. 103,591.07	4.88

Proportion of expenses to earnings:

	1874.	1873.	Inc. or Dec.	P. c.
Excluding taxes.....	54.41 per cent.	59.20 per cent.		
Including taxes.....	55.80 " "	61.41 " "		

The disposition of the net income of 1874 shows \$574,489.62 paid for interest on funded debt and scrip, \$499,866.52 for rents of railroads, \$91,000 for sinking funds, \$89,860.68 in settlement of old accounts (chiefly a disputed claim for taxes), and \$1,135,080 in the ordinary 10 per cent. dividend on both classes of the stock, leaving a balance of \$119,893.67, against \$84,813.52, which was the balance on hand at the beginning of the year.

The Louisiana Bridge, used in 1874 for the first year, at the lowest charges made on similar bridges, earned about 7½ per cent. on its cost directly, and the parts of the company's lines most affected by it show the largest increases of traffic and the only increase of freight traffic. The gross earnings of the St. Louis, Jacksonville & Chicago line were 4.12 per cent. greater, those of the Louisiana Branch 30 per cent., and those of the Louisiana & Missouri River 19.98 per cent. greater than in 1873.

Of the leased lines, no separate account is kept of the Joliet & Chicago, which is paid a fixed rental, but it is very profitable. The profit from the St. Louis, Jacksonville & Chicago is estimated at \$155,373, and the direct loss from the Louisiana & Missouri River \$9,274 in 1874 against \$51,174 in 1873, against which may be set the profit on the traffic which this line con-

tributes to its other lines and which it would not get otherwise. A modification of the lien of this road was made during the year, by which, when the 35 per cent. of the gross earnings are less than the interest on the funded debt guaranteed by the Chicago & Alton, the deficit will become a debt due the latter company from the lessor. The President, Mr. T. B. Blackstone, says:

"Your property has not only been in all departments maintained in condition equal to that of the best Western railways, but by the continual substitution of steel rails for iron rails, as the latter are worn out, by adding to double tracks, by reducing the inclination of the steepest grades, and by other improvements and additions which have been made at a cost of \$762,977.08 during the year, your property is in much better condition for operating at reduced cost than ever before."

An account of these improvements enumerates 5,014 tons of steel rails, 1,215 tons of iron rails and 215,929 new cross-ties used in renewals in 1874, and 522 tons of steel rails and 14,520 cross-ties in additional double track, while at the close of the year there was 183 miles of the road laid with steel. Grading for a double track between Joliet and Wilmington and the reduction of the grades so that there shall be none going with more than 24 feet to the mile for 80 miles from Chicago are nearly completed.

Mr. Blackstone says:

"The reduced amount of traffic is due in some degree to the depression of general business, but mainly to the operation of the present railway law of Illinois, which practically prohibits all traffic which might be obtained at rates affording less profit than those resulting from the fixed schedule of charges. At many of the our competing points are found railways which extend beyond the limits of Illinois, and are therefore at liberty to make such charges on through traffic as they see fit. Under the rules prescribed by the law, the alternative is placed before us of reducing all our rates to the basis of competition or abandoning business at such points. Such a reduction would very soon lead us to financial difficulties, and it is much better to let our competitors take the traffic until the courts or the Legislature shall relieve the people and the railways of the injury that results from the present law. We have been restricted by arbitrary rules at variance with commercial usage and business principles. We have had competition for the past year under circumstances which it would seem could not be more to our disadvantage. We have expended a large amount in returning cars empty that might have been loaded with freight to the mutual benefit of the shipper and carrier had it been within our lawful discretion to make temporarily a slight reduction in rates. We have contended as best we could with competitors who were so desirous of obtaining traffic from points of crossing and intersection with your line that they have reduced their charges in many cases so much below rates affording a reasonable profit that the result has been to place several such lines in the hands of receivers and to cause serious financial embarrassments to others.

"The low rates that have been charged on many of our Western railways for transporting the products of the soil for several years past have caused trouble in many ways. The policy which has been pursued has deprived shareholders, in many cases, of all dividends, and in others, bondholders have failed to receive interest on their bonds. It has led the people, and in some cases even the courts, into the erroneous belief that such low rates were reasonable, and that higher rates charged on other lines were therefore extortionate. It has been one of the principal causes of hostile and unwise legislation.

"It is beginning to be apparent to the people that their efforts to establish prices of commodities by legislation must not only fail, but, if persisted in, must result in injury to themselves, as well as to railway companies; and many persons are demanding the amendment or repeal of the present railway law.

"The result of the traffic on your lines during the past year, under very unfavorable circumstances, demonstrates their intrinsic value; but with little more than half an average crop of corn in 1874, with the general business of the country but partly recovered from the effects of the panic, and the uncertainty of any immediate relief from unfriendly legislation, candor compels us to report that at present the prospect for a profitable year's business in 1875 is not very encouraging."

THE SCRAP HEAP.

British Rail Exports.

The Board of Trade report shows that the total exports of railroad iron of all kinds (including steel rails) for the month of January were 36,171 tons in 1875 against 46,598 in 1874, the value of the exports being \$394,253 in 1875 against \$332,942 in 1874. The decrease in quantity is 22.4 per cent.; in value, 39.2 per cent. The exports to the United States were 22 this year, and 4,321 tons last. The total exports to the United States in January of this year of iron of all kinds, including pig and scrap, were 4,558 tons, against 14,737 tons last year.

The Dickson Manufacturing Company.

The Cliff Shops of the Dickson Manufacturing Company at Scranton, Pa., caught fire about 3:30 o'clock on the morning of February 27, and were almost entirely destroyed. Besides the valuable tools and machinery, there were in the building three locomotives just completed and eleven others in various stages of progress. The loss is estimated at \$500,000, on which there is less than \$200,000 insurance. About 250 men were employed in the shops. Besides these, the company has another large shop at Wilkesbarre.

Railroad Manufactures.

The Southwestern Car Company at Jeffersonville, Ind., is turning out a lot of box cars for the Terre Haute & Indianapolis road.

Hawkins & Burrell, of Springfield, Mass., have just completed a new iron bridge of two spans, 104 feet each, for the Cheshire Railroad, at Troy, N. H.

The Lebanon Manufacturing Company at Lebanon, Pa., has an order for 400 four-wheeled coal cars to go to Nova Scotia.

The owners of the Jersey City Steel Works have bought the old rolling-mill property at Elizabethport, N. J., and propose erecting large buildings there to which the steel works will be removed.

Stouffer, Porter & Co., of Connellsville, Pa., manufacture frogs, switches, bridges and pit cars, besides tools and general machine work. Their works have run steadily during the past year, and have turned out a large quantity of castings for the Cumberland & Pennsylvania roads, besides the other work.

The Portland (Me.) Rolling Mills have started up after remaining idle about a month while undergoing repairs. The mills turned out 14,650 tons of rails last year.

The Knowlton Platform and Car Coupling Company has been organized at Rockland, Me., for the purpose of manufacturing platforms and car couplings under the patents issued to C. H. Knowlton, November 26, 1872, and April 1, 1873. Its capital stock is \$50,000.

Dawson & Bailey, at Connellsville, Pa., recently shipped some mogul engines for the Cairo & St. Louis and a narrow-gauge engine for the Texas Western.

In addition to the other work on hand, the Wason Manufacturing Company at Springfield, Mass., is building some passenger coaches for the Illinois Midland road.

The Ferndale Rolling Mills at Allentown, Pa., are to be started up shortly.

The Hereford Iron Company of New York has purchased a controlling interest in the East Penn Iron Company, whose furnaces are at Lyons, Berks County, Pa.

The Allentown (Pa.) News says: "It is reported from a very reliable source that on Wednesday the Allentown Iron Company sold its entire immense quantity of pig iron, now in stock at their works in this city, and consisting of 23,000 tons, to certain parties not mentioned, for \$29 per ton."

PERSONAL.

—Mr. J. N. McCullough, General Manager of the Pennsylvania Company, had three ribs broken and his head badly cut in an accident on the Pittsburgh, Cincinnati & St. Louis road, February 19, the directors' car, in which he was riding, being thrown from the track by a broken rail. Mr. William Stewart, General Freight Agent, was badly bruised at the same time.

—Mr. John A. Tracy died in Erie, Pa., February 26, at the age of 77 years. Mr. Tracy was for many years extensively engaged in railroad work, having had contracts on the Erie and other roads. He was President of the old Erie & Northeast Railroad Company, and afterwards a director in the Buffalo & Erie and the Lake Shore & Michigan Southern, the Erie & Pittsburgh, and the Chicago, Rock Island & Pacific. He was father of John P. Tracy, President of the Chicago, Rock Island & Pacific, and father-in-law of Wm. L. Scott, of Erie, another well-known railroad man.

OLD AND NEW ROADS.

Bergen County.

The organization of this company has been completed, and the intention is to begin work on the road as soon as the weather will permit. The survey and location are already completed, and much of the right of way is arranged for. Many of the land-owners on the line have given the property needed, though in some cases some expensive property will have to be bought.

The road is to run from the Erie at Rutherford Park, N. J., northward to the same road again at Ridgewood, a distance of 11 miles. It is intended as a loop or short line of the Erie, and when finished will be leased to that road and the through and freight trains will be run over it, the present line being retained for the local business only. There will be by the new line a saving of two miles in distance, and it will avoid the sharp curves between Passaic and Paterson. There will be also a saving in the maintenance of the two costly bridges over the Passaic, the new road being wholly to the eastward of that river.

Geneva, Ithaca & Athens.

In consequence of the change in the ownership of this road, a number of the directors have resigned and their places have been filled by parties in the interest of the Cayuga and Lehigh Valley companies.

Baltimore & Ohio.

The controversy with the Pennsylvania Railroad Company continues with but little change and few new features to note. The company continues to sell tickets and take freights at the reduced rates. All freights bound to and from New York are carried between that port and Baltimore by the steamers of the Old Dominion Company. The situation in Baltimore remains unchanged, and the Philadelphia, Wilmington & Baltimore Company continues as heretofore to maintain a strict neutrality between the contending parties.

This company has made a reduction of 25 cents per ton on coal from Cumberland to Baltimore. This is done to meet the efforts of the Pennsylvania to secure additional tonnage for its own line from the Cumberland coal region.

It has been reported—and contradicted—that the company had secured an interest in the North Pennsylvania's new line from Philadelphia to New York. That company will doubtless be willing to take business from the Baltimore & Ohio, or any one else, when its new line is finished, but it appears so far to be entirely independent.

Heavy shipments of sugar, syrup and coffee continue to be made from Baltimore to Chicago over this road.

Chicago, Danville & Vincennes.

The suit in which Messrs. Brown and Hammond were appointed receivers last week was brought by the first-mortgage bondholders, and is for foreclosure of the mortgage. The movement was somewhat sudden, and was hastened, it is said, by the discovery of a conspiracy on the part of Judson, Tenney and others, who hold nearly all the stock, to have a receiver appointed in their own interest, and thus get the property into their own hands.

The complaint in the suit states the funded debt as follows:

First-mortgage bonds.....	\$2,500,000
Indiana Division mortgage.....	1,000,000
Convertible bonds.....	1,000,000
Chattel mortgage.....	1,000,000
Overdue coupons.....	525,000
Total.....	\$6,525,000

The bonds being at the rate of \$44,000 per mile on the 138 miles of completed road. This is, it is alleged, very much more than the actual cost of the road.

There is also a large floating debt, which the complaint states as follows:

Reported by company.....	\$826,682
Accommodation paper.....	500,000
Due John E. Young & Co., contractors.....	700,000
Liability on guarantees.....	500,000
Total.....	\$2,526,682

Making a total funded and floating debt of \$9,051,682.

It is alleged that a mortgage has been fraudulently executed and without the consent of the stockholders as required by law. The President, General Manager and Treasurer were all members of the contracting firm which built the road, and other irregularities are alleged.

On behalf of the company application has been made to the Circuit Court at Joliet to set aside the order appointing the receivers. It was to be heard this week.

The receivers have made a report in which they say that the President and Treasurer refused to turn over the property in their possession or to open the vault in which the books and papers were kept. They could find no money belonging to the company, but the bank account was overdrawn, large sums were due to connecting roads, and pay-rolls and supply bills for four months were unpaid. Freights to come due were mortgaged to some of the floating-debt creditors. Of the convertible bonds, 81 were found, and of the chattel mortgage of January, 1875 (which is claimed to be illegal), only \$100,000 out of \$1,000,000 were found. The corporation owes on certificates of indebtedness \$384,000, and about \$900,000 is due on other accounts.

After some search the original books were found and in them records of large transactions in bills payable which do not appear on the present books, which were copied from the original.

Copies were also found of a number of private letters which tend to show that the construction certificates of the Indiana Division have been altered and doctored to suit the private purposes of the officers. Other letters refer to issues of the stock and to plans for securing the appointment of a receiver friendly to the present management. It is also alleged that

there were extensive frauds in contracts for ballasting and in the assumption of \$100,000 Illinois Coal Company's bonds.

The receivers intend to investigate thoroughly the affairs of the company from the beginning.

Dividends.

Dividends have been declared by the following companies: Chicago, Burlington & Quincy, 5 per cent., semi-annual, payable March 15.

Burlington & Missouri River, 5 per cent., semi-annual, payable March 15.

Salem & Lowell, 1 per cent., semi-annual, payable on demand.

Northern Central.

A special meeting of the stockholders is called to be held at the office in Baltimore, March 31, to vote on the question of authorizing the issue of \$1,000,000 new bonds under the consolidated mortgage for \$10,000,000. The proceeds are to be used for the improvement of terminal facilities and other purposes.

The Poughkeepsie Bridge Line.

The Boston committee, which has been examining the proposed line from Boston to the West by way of the Poughkeepsie Bridge, has made a report favorable to the project.

Madison & Portage.

The Madison (Wis.) Circuit Court has decided in favor of this company's claim to a share in the St. Croix land grant.

Atchison, Topeka & Santa Fe.

A circular from the Treasurer states that the floating debt is substantially cleared off and that about 93 per cent. of the coupons which the company proposed to fund have been funded according to its proposal. The receipts from the road and the sale of lands have equalled the estimates, and the officers believe that there will be no trouble in paying the coupons hereafter.

Negotiations are now in progress which, if successful, will secure the construction of a railroad from the terminus of this road at Granada, Col., west to Pueblo.

Peoria & Rock Island.

The bondholders' committee has submitted a report to the effect that they have been unable to carry out the agreement made at the bondholders' meeting, owing mainly to the fact that the Thomas foreclosure suit has been begun and was being pressed. The committee now recommends that they be authorized to buy in the road at the foreclosure sale in order to prevent its falling into the hands of a small section of the bondholders.

On application of Receiver Hilliard, the United States Circuit Court has granted an injunction restraining the collection of the taxes for 1874 assessed on the road.

An arrangement has been made by which all the stock business of the road for Chicago is to be given to the Chicago, Rock Island & Pacific, and in return that road will turn over to the Peoria & Rock Island all its Peoria and southern-bound freights.

St. Paul & Pacific.

Mr. F. B. Delano, of St. Paul, has introduced a bill in the Minnesota Legislature which provides that all lands, property and franchises pertaining to the uncompleted portions of this road (the St. Vincent Extension and Branch) shall be immediately forfeited and revert to the State of Minnesota. This forfeiture can be legally made now, as the company has never accepted or complied with the law passed last winter to extend the time for the completion of the road, and has never accepted the law of Congress extending to March 3, 1876, the time for forfeiture of the land grant. In support of the bill it is urged that nothing more can be expected from the bondholders, as they have shown no disposition to advance any more money or to complete the road. Meantime the extension of time granted by Congress is rapidly passing away.

If this bill is passed, and it is thought probable that it will do so, it is to be followed by another granting the franchise, property and land grant to any parties who will take them and complete the lines. It is said that certain parties are ready to do so, if they can be sure of a title to the property. It is proposed to divide the lines for the purpose of regaining them into three sections: from Watab to Brainerd, from St. Cloud or Melrose to Glyndon, and from Glyndon to St. Vincent.

The whole length of these lines is 365 miles, of which 140 miles have the rails laid, 180 are graded and ready for the track, and 45 are still to be graded.

Boston & Albany.

The usual annual investigation by a legislative committee of the complaints made against this company is in progress in Boston. The complaints are chiefly of discrimination against Boston in rates and of shortage in grain, the latter being a standing cause of quarrel between the company and the Boston people. Much testimony has been taken by the committee, and Vice-President Lincoln on behalf of the company has submitted a long and elaborate statement in refutation of the charges.

Ohio & Mississippi.

The competition for passenger business between Cincinnati and St. Louis between this company and the Vandalia Line still continues, though the Ohio & Mississippi has put up the fare again from \$2.50 to \$3. The Vandalia Line still continues to sell tickets between the two cities for \$1, and intends to continue doing so until the other company puts its rates up to \$10, which was the fare before the present contest began, and until its right to a share of the through business is conceded.

St. Louis, Kansas City & Northern.

Another contest has begun between this company and the Missouri Pacific, and both companies have been cutting passenger rates from Kansas City to St. Louis and points east. It is reported that both are about to resume the payment of commissions on passenger business, which was done away with under the recent agreement.

The International and the Texas Aid Bonds.

The Galveston News says: "The International compromise bill has received an amendment which adds two important features. The friends of the company have expressed their acceptance, and if the bill passes as amended, the company will doubtless be ready to abide by it as a final settlement."

"The amendment seems to be equivalent to a transfer to the State of 2 per cent. of the company's gross receipts to assist in paying interest and principal of the \$3,000,000 of bonds, and to an engagement of the company to take for two years bonds at par to the amount of \$320,000 to cover the interest on the subsidy, and to stand off taxation for that period."

"It seems to be understood that the opposition will generally support the amended bill. If so, its passage in both houses may be considered assured."

Columbus, Chicago & Indiana Central.

The committee of the first and second mortgage bondholders appointed at the meeting held January 4 have been working together and have prepared an agreement which is to be submitted to the bondholders and which is as follows:

The provisional committee for the first-mortgage bondholders is empowered to protect the rights of the subscribing

bondholders, until at least half of the first consolidated mortgage bonds outstanding shall have come into the agreement; then a permanent committee shall be elected by a majority.

In like manner the provisional committee of the second-mortgage bondholders is empowered to act until at least half of the outstanding bonds, exclusive of those held by the Pennsylvania Railroad Company, shall have come into the agreement, when a permanent committee shall be elected.

Either of the permanent committees may, if necessary, foreclose, buy in at foreclosure sale, and generally do whatever may seem needful for the protection of the subscribing bondholders.

The committees are authorized to negotiate with any or all the parties interested, for the purpose of making such arrangements, variations or adjustments as bondholders, as may seem to them expedient. But such arrangement shall be of no effect unless ratified at a general meeting by two-thirds in interest.

In case it is deemed advisable to foreclose, either of the committees is empowered to buy in on foreclosure. The subscribing bondholders, for the purpose of completing the purchase by furnishing what may be required otherwise than by the use of bonds, may be assessed; but not more than 20 per cent. of the face of their bonds can be asked from those holding first-mortgage bonds, if purchased on foreclosure by their committee; and but 10 per cent. from those holding second-mortgage bonds, if purchased by their committee. All subscribing bondholders shall, within forty days after signing, deposit their bonds with the Union Trust Company of New York. Transferable certificates shall be issued for such bonds and coupons as may be deposited. In case of adjustment, without foreclosure, the bonds and coupons will be returned upon the surrender of the certificates.

Milwaukee & Dubuque.

This newly organized company has purchased for \$30,000 the road-bed of the old Milwaukee & Beloit road, nearly 50 miles of which was graded years ago. It is now proposed to complete the road for the first 50 miles out of Milwaukee, the estimated cost being \$400,000. Of this \$150,000 has been subscribed by towns on the line, and an effort is being made to raise the rest by subscriptions in Milwaukee.

New York, New Haven & Hartford.

Mr. H. L. Goodwin has submitted charges against this company to the Connecticut Railroad Commissioners. He alleges that stock dividends have been made; that the cost of the road as reported is too great by the amount of the Schuyler frauds; that the cost of equipment has been misreported; that the earnings have been misreported by reason of payments to the Harlem road; that no report is made of rental paid for the Harlem River & Portchester road; that the rates of passenger fare are really greater than reported, and that there is a deficit instead of a surplus. The company denies the charges. The Commissioners took the papers, and will decide whether to hold an investigation or not.

Pennsylvania.

A contract for grading a third track from Gallitzin, Pa., to Cresson, four miles, has been awarded to Messrs. Campbell, of Altoona.

Meetings.

The following companies will hold their annual meetings at the times and places given:

Pennsylvania, at Musical Fund Hall, Locust street, Philadelphia, March 9, at 10 A. M. The annual election of directors will be held at the general office in Philadelphia, March 23.

Knox & Lincoln, in Bath, Me., March 10.

Eastern.

This company has been offering in New York and Boston \$2,000,000 of its new 7 per cent. loan, due in 1884. Proposals for the loan were opened March 1, when bids were received for the entire amount at prices varying from 90 to 94 and accrued interest.

Stockton & Iona.

The first lot of 300 tons of rails for this road has arrived at Stockton, Cal., and tracklaying will soon be begun.

St. Louis, Hannibal & Keokuk.

Tracklaying is in progress on the extension of this road from Frankfort, Mo., to Bowling Green. O'Hara Brothers, of Cedar Rapids, Ia., have the contract for completing the road. The town of Troy, Mo., has voted \$55,000 aid to the road on condition that the shops are located in that place.

Nevada County.

Turton & Knox, the contractors for the grading, have commenced work and have nearly 400 men employed. The location is completed from Colfax to Bear River, and the permanent line thence to Nevada City will soon be decided on.

Illinois Railroad Law.

About a year ago in the suit of Wiswell against the Chicago & Alton in the Morgan Circuit Court, a suit brought to recover penalty for violation of the Illinois law, the company applied for a writ of certiorari to remove the case to the United States Circuit Court. That Court granted the writ, but subsequently decided that it had no jurisdiction in the case, and that it must be returned to the State court. The company appealed, and now the United States Supreme Court has affirmed the decision of the Circuit, and ordered the case returned to the State court where it originated.

Yardmasters' National Association.

Pursuant to a call issued by the Indianapolis Yardmasters' Association, a meeting was held in Indianapolis last week at which a large number of delegates were present. A National Association was formed, which is intended to include in its membership the yardmasters of the railroads of the United States and Canada. The object is mutual protection and insurance.

The Hoosac Tunnel Line.

A State loan for \$1,500,000 on account of the Hoosac Tunnel and the Troy & Greenfield road has been awarded to Lee, Higginson & Co., of Boston, at 109, by the State of Massachusetts.

The special committee of the Legislature on the Tunnel has unanimously reported a bill which continues and establishes the Boston, Hoosac Tunnel & Western Railroad Company, which is to have exclusive control of the Tunnel Line, the right being reserved to any connecting line to use the tunnel upon such terms and conditions as may be fixed by the Railroad Commissioners. Five directors, appointed by the Governor, are authorized to complete the Hoosac Tunnel and Troy & Greenfield Railroad, and, as they may deem expedient, either to operate the same or to hold them open to the use of all such railroad corporations, as may apply for the right to use it, on such terms and conditions as the directors may prescribe, subject to the approval of the Governor and Council; or to consolidate and unite the franchises and properties placed in their charge with the franchises and properties of other corporations forming part or parts of a through line between points in Eastern Massachusetts and points in the eastern part of the State of New York; or, if necessary, to hire the same if beyond the limits of this State.

The contract for the enlargement of the little tunnel west of North Adams has been let to B. N. Farren, and N. C. Munson has the contract for building the new road from that point to the Vermont State line, 6.84 miles. The maximum grade is

now 79 feet to the mile, which the re-location will reduce to 31 feet.

There is considerable disappointment expressed at the fact that the committee has seen fit to practically ignore the report of the Tunnel Commission, and to submit a report looking towards the establishment of the "toll-gate system" for the tunnel and State road. It is thought that the Legislature will probably pass over the committee report and adopt the commission bill providing for a consolidated line.

Springfield & Longmeadow.

The completion of the organization is still delayed by the conflict between the City of Springfield and the private stockholders, the latter, who hold one-quarter of the stock, claiming the right to control the election of officers. The city representatives refuse to admit this and meantime nothing is done.

The Vermont Central Consolidation.

The following is said to be the plan proposed for the consolidation of the various roads included in the Vermont Central trust and now worked by the Central Vermont Company as trustee and receiver: "The proposition is to issue \$11,000,000 of bonds. Of these \$3,000,000 at 6 per cent. to be apportioned to the Vermont & Canada stock, \$4,000,000 at 7 per cent. for exchange of the equipment bonds of the Vermont Central and Vermont & Canada, \$3,000,000 for the Rutland bonds and floating debt, and \$1,000,000 to be reserved for Vermont Central floating debt and other contingencies of the consolidated roads, \$1,000,000 of 8 per cent. guaranteed stock to be issued to the holders of Central Vermont stock, who have recently contributed that amount to the new corporation. The Vermont Central first mortgage bonds and Rutland preferred stock to be consolidated into a 6 per cent. preferred stock of \$5,000,000, the Vermont Central mortgage and Rutland common stock into \$3,000,000 of common stock, each in the proportion of 13-23 to the Vermont Central and 10-23 to the Rutland securities.

"The interest required will be for the \$11,000,000 bonds \$740,000; for the guaranteed stock \$90,000; for the Missisquoi bonded interest \$35,000; total \$865,000. The gross earnings of the combined roads are now about \$3,500,000; allowing 70 per cent. for expenses gives a net income of \$1,050,000 which is nearly enough to pay the interest on the bonds, guaranteed stock, and \$300,000 for the 6 per cent. preferred stock."

This would make per mile of road owned by the consolidated company, \$3,390 of guaranteed stock, \$27,119 of preferred and common stock and \$37,288 of funded debt. Rentals would also have to be paid for the Stanstead, Shefford & Chambly, the Montreal & Vermont Junction, the Sullivan, the Vermont Valley, the Vermont & Massachusetts Branch, the Addison, the New London Northern and the Ogdensburg & Lake Champlain roads, though the last two and perhaps one or two of the others pay their own rental and a surplus to the lessees.

Union Pacific.

The proposition to the Government has been amended so as to make the sinking fund commence in 1872, applying to it the amount now due the company from the Government; then the company, beginning in 1875, to pay \$500,000 per year in semi-annual payments for ten years; after this \$750,000 semi-annually for ten years; then \$1,000,000 per year, until the aggregate sums meet the bonded debt and interest; also to allow the Government to apply all transportation and mail dues as fast as received to the above sums. Any deficiency between the amount due by the Government and the obligations of the company is to be made up by the company every six months.

The exchange of income bonds for the new sinking-fund bonds was discontinued February 27. The company gives notice that interest on the outstanding income bonds will be paid at the office of the company in Boston, March 1, at the rate of 6 per cent., being the legal rate of Massachusetts.

Chicago, Milwaukee & St. Paul.

The opening of the bids for a new tunnel on the La Crosse Division, in the town of Greenfield, Wis., has been deferred until March 2.

Toledo, Wabash & Western.

Hon. Jacob D. Cox, President of the company, has been appointed Receiver of the road. He is instructed by the Court to pay all claims for labor, materials and supplies furnished prior to the order of appointment.

There is much trouble among the employees, most of whom have four months' pay due. So many promises of payment have been made that the men will listen to no more. It is possible, however, that the appointment of the receiver and the accompanying order of the Court will induce them to wait until matters can be adjusted, and a strike avoided.

Utica, Ithaca & Elmira.

This company offered in London, Feb. 13, through Messrs. Cummins & Chinnery, an issue of \$500,000 first-mortgage 7 per cent. sterling bonds (its entire issue), at a price of 87½. The road is described in the advertisement as being 65 miles long, and extending in a northeasterly direction from the Erie to the New York Central, beginning at Elmira and Corning. A great coal traffic is predicted for the line. There remains seven miles of grading to be done and 14 miles of track to lay to complete the road, and the expenditure on it so far amounts to \$1,800,000, of which \$1,040,000 has been derived from subscriptions to the stock at par. The proceeds of the loan are to complete the road and retire the floating debt, and the road is to be opened in July.

United New Jersey.

Feb. 10, J. S. Morgan & Co. offered in London an issue of \$2,300,000 (\$260,000) of the 6 per cent. general mortgage gold bonds of this company, interest payable March and September, and due in 1901, at par. The proceeds are to be applied to the payment of the existing debt of the company and the bonds maturing in February and April of this year.

Grand Trunk.

This company offered in London February 13, an issue of \$500,000 of 5 per cent. perpetual debenture stock at 88. One half is to be applied to extinguishing existing charges which are prior to the first preference stock—the purchase of cars now leased, the Toronto station also now leased; the remainder for the general purposes of the company.

New French Railroads.

During the year ending Oct. 1, 1874, there were opened for traffic in France 23 new railroads or extensions of railroads, having a total length of 326 miles, while about two miles was abandoned. The longest single line of the 23 was from Orleans to Gien, 88 miles.

Chicago & Illinois River.

It is reported that this road has passed under the control of the Chicago & Alton. It is completed from Joliet, Ill., southward 20 miles into the Wilmington coal field and would be valuable either to the Rock Island road or to the Chicago & Alton as a coal branch.

Nantucket.

Arrangements are being made to build a narrow-gauge road across the island of Nantucket, from Nantucket Village south to the South Shore, a distance of about five miles.

Valley of Virginia.

As a consequence of the conference between the Valley and the Baltimore stockholders, the adjourned meeting, which was to have been held February 22, has been postponed until April

7. It is understood that proposals were made for a settlement of differences, but no definite result was reached at the Baltimore conference.

Little Rock & Fort Smith.

The grading is nearly finished on the extension of 20 miles westward and the rails are being laid. The track of the old section of the road is being put in good condition and new ties have been put down nearly all along the line.

New York Central & Hudson River.

The *Utica Herald* says: "It is but a short time since an order went into effect on the Central Railroad which compelled engineers to run from Syracuse to Albany, abolishing the usual termination of trips at Utica. By this order many of the engineers residing in this city will be compelled to move their families either to Syracuse or Albany, or be subject to great inconvenience. It is now announced that the New York Central repair shops in this city are to be closed on Saturday next, and the machinery taken to Syracuse. This order will take employment from fifty to seventy-five mechanics, many of whom are old residents of the city. It is estimated that \$125,000 will be lost to Utica annually by this removal, and gained by Albany and De Witt or Syracuse."

Chesapeake & Ohio.

It is reported that arrangements have been made to build a branch, about 25 miles long, from this road at Clifton Forge, Va., south to Buchanan, the western terminus of the James River & Kanawha Canal.

Richmond papers contain notices to the effect that by virtue of a deed of trust from the Virginia Central Railroad Company, executed June 2, 1854, Hon. James Lyons, surviving trustee, under peremptory instructions from one of the bondholders, will proceed on Monday, May 3, in that city, to sell at public auction the Virginia Central Railroad, with all its depots, buildings, lands, railways and franchises.

Cleveland, Tuscarawas Valley & Wheeling.

The report that this road (late the Lake Shore & Tuscarawas Valley) had been purchased in the interest of the Baltimore & Ohio is denied. The new owners intend to extend it from the present terminus to a connection with the Baltimore & Ohio either at Wheeling or Bellaire, but it will be done entirely in their own interest.

Montclair.

Notice is given that Messrs. Jordan, Miller and Loomis, receivers appointed in the McArthur suit, will sell at auction, April 3, the real estate at Woodside, Kearney, Montclair and other places, and the equipment and other movable property. The sale is made under an order from the Chancellor of New Jersey and in order to close up the trust.

Paducah & Memphis.

It is reported that this company has passed under the control of Col. McComb and other parties connected with the New Orleans, St. Louis & Chicago.

Memphis & Little Rock.

It is reported that negotiations are on foot for the sale of a controlling interest in this road to the new owners of the Little Rock & Fort Smith. It is known that the chief owners of the stock have been quite willing to dispose of it for some time past.

Intercolonial.

It has been finally decided by the Canadian Government to change the gauge from 5 ft. 6 in. to 4 ft. 8½ in., and the rolling stock for the new gauge is being purchased and built. Work is to be pushed during the coming season, with the hope of having the whole 374 miles from Moncton, N. B., to Rivière du Loup, P. Q., open for business in the fall.

Utah Western.

This road is now finished and in operation from Salt Lake City west to Lake Point, 20 miles, where connection is made with steamboats on Salt Lake.

Toledo, Peoria & Warsaw.

The holders of the consolidated and second-mortgage bonds met in New York, February 26, for the purpose of considering the present condition of the company and to take some action to protect their respective rights and interests. After a brief discussion, the following committee was appointed to draw up a plan for the reorganization of the company, and ordered to report at a future meeting: Charles L. Frost, Rush C. Hawkins, John S. Barney and A. B. Belknap.

Maysville & Lexington.

The suit of J. B. Alexander and others against this company goes over to the May term of the United States Circuit Court at Covington, Ky., under the ruling of Judge Ballard that Reuben W. Howes, trustee of certain mortgage bonds, must be made a party to the suit.

Memphis, Carthage & Northwestern.

Edward Burgess, contractor for the grading of this road, recently brought suit against the company for \$108,000 claimed to be due for work done. Last fall a judgment was rendered by the Cherokee County (Kan.) Court for \$74,000 in favor of Burgess, who now claims that this is a prior lien to the mortgage under which the road was recently sold, the Kansas law giving a contractor's lien priority over all others.

Philadelphia & Reading.

A new branch five miles long is to be built from Mahanoy station on the Catawissa Branch to the foot of Green Mountain.

The circular fixing the rates of freight and tolls on anthracite coal was issued March 1. The new rates show a reduction of 25 cents per ton, or 12½ per cent., to Port Richmond, and a proportionate reduction to other points. A new charge, however, is made of fifteen cents per ton for shipping expenses at Port Richmond, making the net decrease 10 cents per ton.

Reading & Lehigh.

The stockholders will meet in Reading, Pa., April 17, to vote on the question of authorizing an increase of \$300,000 in the funded debt for the purpose of issuing the same to parties entitled thereto under the agreement heretofore made between the creditors of the Berks County Railroad Company. This, with the first-mortgage bonds, will bring up the debt to \$1,800,000, or about \$40,000 per mile.

North Pennsylvania.

A Philadelphia dispatch says that Messrs. Pardee, Knight, Comly and others interested in this company have purchased the entire interest, 30,800 shares, held by the City of Philadelphia. It is said that this action is taken to prevent the Pennsylvania Railroad Company from acquiring a controlling interest in the North Pennsylvania and its new line to New York.

Cincinnati, Sandusky & Cleveland.

The round-house and machine shop at Springfield, O., were destroyed by fire on the morning of March 1, with five engines which were in the house. The loss is estimated at \$60,000.

The Floods in the Southwest.

The spring floods have inflicted serious loss on the Tennessee roads, the telegraph reporting 20 bridges down between Bristol and Chattanooga on the East Tennessee, Virginia & Georgia and the road bed washed away in many places. The Memphis & Charleston was under water for miles, with several

bridges washed away. The Western & Atlantic road lost a number of bridges. The Nashville, Chattanooga & St. Louis was badly damaged in many places, and serious fears were entertained for the safety of the great bridge over the Tennessee at Bridgeport. Latest dispatches report the river falling and the bridge safe.

St. Louis, Iron Mountain & Southern.

This company has issued a circular proposing to fund one and one-half years' interest on all its bonds, except St. Louis & Iron Mountain first-mortgage, beginning with the coupons due May 1. The object is to use the earnings of the road in paying off the large floating debt and in providing additional equipment. It is reported that the circular is issued in advance and with the approval of holders of a majority of the bonds.

Mississippi Valley & Western.

The foreclosure sale of this road will take place in St. Louis, April 14. Testimony is still being taken in St. Louis as to the claims against the company which are or may be entitled to share in the proceeds of the sale.

Chicago & Western.

This company has asked the town of Cicero, Ill. (adjoining Chicago on the west), for the right of way for a double-track railroad across the town.

Baltimore, Philadelphia & New York.

Some time ago, on suit of Jackson Lyons, of Delaware County, an injunction was issued against this company (then known as the Juniata & State Line) on the grounds of the unconstitutionality of the charter. The case was carried up to the Supreme Court, which has just dismissed the injunction, and given an opinion sustaining the charter in every particular and pronouncing it valid.

Los Angeles & Independence.

Work was begun on this road at Santa Monica, Cal., February 18. Orders have been given for the building of a wharf 2,700 feet long at Santa Monica, which will be the bay or ocean terminus. This wharf will have 30 feet depth of water at its outer end. The line through Los Angeles is not yet finally located, and it will probably run outside of that city.

Central Pacific.

There are now 24 passenger and 250 freight cars being built in the Sacramento shops in preparation for the summer business.

The proposition for the payment of \$400,000 annually by the company as a sinking fund to provide for its indebtedness to the Government will, it is said, be approved by the Secretary of the Treasury and submitted to Congress for its action.

Columbus, Chicago & Indiana Central.

The Pittsburgh, Cincinnati & St. Louis Company, lessee, has begun suit to compel this company to perform its share of the agreement of lease, which requires that all the bonded debt outside of the \$15,821,000 specified in the amended lease should be funded in income bonds convertible into preferred stock. The complainant alleges that in consequence of the failure of the lessor to fulfill the contract a judgment and decree of sale of the section of the road between Richmond, Ind., and Newcastle has been obtained to satisfy claims amounting to \$932,500, in consequence of which the lessee is in danger of being ousted from the possession of that part of the road. A decree is asked for to compel the fulfillment of its agreement by the lessor company.

New York & Oswego Midland.

The United States Circuit Court has reserved its decision on the applications for injunctions against the tax collectors of the towns along the line to restrain them from collecting the taxes assessed on the road. The cases were all put over to March 5.

Meantime, in view of the difficulties of running the road in consequence of the levies made upon equipment and other property for taxes, the receivers have resolved to withdraw all trains, and the last regular train, for the present at least, passed over the road February 27. Trains will probably be run from time to time, as circumstances permit, and a few of the employees will be retained. The equipment is all to be stored up at certain points on the line.

New Jersey Midland.

On application of Theo. K. Varick, Nathaniel Dale and James McBride, creditors, the Chancellor of New Jersey has issued an order for the company to appear before him at Newark, March 8, and show cause why a receiver or trustees should not be appointed. The complaint alleges that the company is completely insolvent and has a large floating debt which it is unable to pay. The employees have four months' pay due them and large sums are also due for current supplies. It is also charged that there has been mismanagement and that certain directors are interested in the sale of supplies to the company. Its checks and notes are constantly protested, even for small amounts, and the interest on the funded coupons is unpaid.

Boston, Revere Beach & Lynn.

This company desires to purchase for its proposed road 550 tons iron rails, 40 lbs. to the yard; 20,000 ties; 2,500 spruce and 300 oak piles; 850,000 feet spruce lumber, for bridge and trestle work; one draw-bridge, 30 feet long; 8 first-class passenger, 3 open passenger, 3 smoking, 3 baggage, 2 box and 3 flat cars, all narrow gauge; four engines, 10 to 12 tons weight, and two small ferry boats for passengers exclusively. Application is to be made at the office of the company, No. 45 Congress street, Boston, Mass.

Cairo & St. Louis.

After many delays, this narrow-gauge road is finally completed from East St. Louis south by east to Cairo. The first train passed over it February 19, and regular trains will run shortly. It is 156 miles long, of 3 feet gauge and is the longest continuous line of that gauge in the United States.

Rome, Watertown & Ogdensburg.

This company has made a general reduction in passenger fares from March 1. The fares are now at the uniform rate of three cents per mile.

The shops at Rome, N. Y., began to run full time March 1. Orders have been given to build 100 new freight cars, and work on these will be begun at once.

Utah Southern.

This road is now completed to York, Utah, four miles beyond Santaquin and 75 miles southward from Salt Lake City. The road is now finished, but it will be extended southward from York by the Utah Southern Extension Company, which is virtually the same as the Utah Southern.

New York, Kingston & Syracuse.

A final decree of foreclosure and sale has been granted and filed in the clerk's office of Ulster County, N. Y.

ANNUAL REPORTS.

Central of New Jersey.

The report of this company for the year ending December 31, 1874, as heretofore, includes the operations of the various branches as well as of the Lehigh & Susquehanna road and branches run under lease, the whole 180 miles of main line and 112½ miles of branches having been operated as one concern. The main line extends from Jersey City to Wilkesbarre, Pa.,

and 74 miles of it, from Jersey City to Easton, is owned. The property owned, reduced to single track, is as follows:

	Miles.
Main line, 74 miles, double track.....	148.80
Main line, third and fourth tracks and sidings.....	86.21
Newark Branch, double track.....	11.20
Perth Amboy Branch, single track.....	17.61
Other branches, sidings, etc.....	5.18

Total..... 267.00

The train service, as compared with the previous year, was as follows:

	1874.	1873.	Inc. or Dec.
Passenger train mileage.....	1,516,318	1,490,117	Inc. 26,201
Merchandise train mileage.....	1,023,895	1,116,750	Dec. 92,855
Coal train mileage.....	2,272,995	2,445,611	Dec. 172,616

Total revenue train mileage..... 4,813,208 5,001,477 Dec. 188,270

Service train mileage..... 269,810 265,247 Inc. 4,563

Total train mileage..... 5,083,018 5,266,725 Dec. 183,707

The work done was as follows:

	1874.	1873.	Inc. or Dec.	P. C.
Passengers carried.....	4,614,587	4,401,326	Inc.	4%
Passenger mileage.....	50,739,853	48,448,969	Inc.	4%
Tons freight carried.....	1,124,742	1,440,580	Dec.	21%
Freight tonnage mileage.....	65,925,312	85,725,370	Dec.	23%
Tons coal carried.....	3,696,922	3,908,315	Dec.	5%
Coal tonnage mileage.....	319,190,725	335,717,780	Dec.	5%

The coal tonnage over the Central Division from the two coal regions served was as follows:

	1874.	1873.	Inc. or Dec.	P. C.
Lehigh.....	1,875,198	1,996,872	Dec.	6%
Lackawanna.....	508,671	485,460	Inc.	4%

Total..... 2,383,869 2,482,332 Dec. 98,463 4

Since 1856, when the transportation of coal was first begun, the coal tonnage of the Central Division has risen from 131,995 tons, in 1856, to 2,383,869 in 1874, the largest tonnage of any year having been 2,482,332 tons in 1873. The tonnage of 1874, though less than that of 1873, exceeds that of any other previous year.

The company now owns 242 engines, of which 234 burn hard coal and 8 wood. The condition of these engines is reported as follows: 157 in first-class order; 49 in good working order; 18 require general repairs, and 18 are now in shops repairing. During the year 1 new passenger engine and 1 new shifting engine have been added to the equipment. One engine has been condemned and cut up.

The equipment of cars is as follows:

121 first-class passenger cars,	1 8-wheel pavilion car,
19 second-class passenger cars,	222 6-wheel iron and lime cars,
35 baggage and smoking cars,	14 4-wheel iron and lime cars,
10 baggage and mail cars,	467 8-wheel coal cars,
3 express cars,	14,236 4-wheel coal cars,
425 8-wheel house freight cars,	366 4-wheel gravel cars,
24 2-wheel house freight cars,	18 6-wheel wood rack cars,
32 8-wheel stock cars,	5 4-wheel wood rack cars,
15 8-wheel caboose cars,	5 8-wheel derrick cars,
71 4-wheel caboose cars,	5 8-wheel tool cars,
414 8-wheel platform cars,	48 8-wheel work (flat) cars,
312 8-wheel gondola cars,	1 4-wheel scale car,
1 8-wheel pay car,	1 4-wheel adzing machine car.

During the year there have been purchased 8 passenger cars, 25 8-wheel box cars and 50 6-wheel iron cars. There have been built in the company's shops 2 caboose cars, 1 work-train flat car, and 2 tool cars, all 8-wheeled; and 156 4-wheel coal cars.

The ordinary receipts and expenses for the year were as follows:

	1874.	1873.	Inc. or Dec.
Passengers.....	\$1,513,983 30	\$1,494,044 21	\$19,939 09 Inc.
Merchandise.....	1,094,500 33	1,920,102 76	825,602 43 Dec.
Coal.....	5,363,677 57	5,462,863 05	99,185 48 Dec.
Mail.....	22,800 00	23,015 00	125 00 Dec.
Express.....	29,974 50	26,114 50	3,860 00 Inc.
Rents.....	22,438 33	21,927 99	510 34 Inc.
Miscellaneous.....	25,044 86	18,298 47	6,746 39 Inc.
Car service.....	17,101 93	.....	17,101 93 Inc.
Total receipts.....	\$8,589,630 82	\$8,881,365 98	\$291,735 16 Dec.

	1874.	1873.	Inc. or Dec.
Running expenses.....	\$1,663,966 65	\$1,773,496 22	\$109,529 57 Dec.
Fuel consumed.....	393,909 90	397,348 09	3,438 19 Dec.
Repairs of road.....	788,433 45	704,421 60	84,011 85 Inc.
Repairs of engines.....	316,444 21	323,392 46	6,948 25 Dec.
Repairs of passenger cars.....	64,240 29	86,788 61	22,548 32 Dec.
Repairs of freight cars.....	85,394 29	88,893 96	3,499 67 Dec.
Repairs of coal cars.....	262,745 64	285,085 07	22,339 43 Dec.
Repairs of buildings, bridges, docks, and machinery.....	162,641 30	131,071 74	31,569 56 Inc.
Repairs of tools and machinery.....	29,438 13	34,871 78	5,433 65 Dec.
Expenses Ashley Planes.....	71,788 97	81,752 60	9,963 63 Dec.
Expense account.....	151,263 94	130,163 14	21,100 80 Inc.
Miscellaneous expenses.....	84,187 21	72,475 07	11,712 14 Inc.
Ferry running expenses.....	78,440 03	77,414 69	1,025 34 Inc.
Ferry-boat repairs.....	34,707 17	20,473 32	14,233 85 Inc.
Car service.....	37,956 45	37,956 45	.....
Total.....	\$4,140,601 18	\$4,215,584 20	\$74,983 02 Dec.

Balance net earnings.....\$4,449,029 64 \$4,665,781 78 \$216,752 14 Dec.

The gross earnings were \$29,366 and the net earnings \$15,210 per mile worked in 1874. The expenses were 48 per cent. of earnings against 47 per cent. in 1873. The decrease in earnings was 3.3 per cent.; in expenses, 1.8 per cent., and in net earnings, 4.6 per cent.

The gross receipts per mile run have been: From passenger trains, \$1 against 98 cents in 1873; from merchandise trains, \$1.56 against \$1.72; from coal trains, \$2.36 against \$2.23. The average receipts per mile run from all trains have been \$1.69 against \$1.60 the previous year. The gross expenses per mile run have been 81 cents, against 80 cents the previous year.

The new line west of Westfield and through Plainfield has been completed and trains now run over it. It crosses the streets of Plainfield on iron bridges, is graded for four tracks, and so straightens the line that there is now but one curve in 17 miles between Elizabeth and Dunellen. New station buildings have been erected at Plainfield, Fanwood and Netherwood.

The report says: "Much benefit to the local business has resulted from the attention given by the company to the adjuncts of their station houses. The improvements will be carried on till all the stations have been put in like attractive condition. This company is the first and almost the only one in the country to give this matter the attention it deserves."

The rock cut through Bergen Hill on the Newark Branch is nearly finished and one track has been laid through it and is in use. During the year 48 miles of steel rails have been laid and there are now 129 miles of steel on the Central and 110 1/2 miles on the Lehigh Division, 239 1/2 miles in all. For the current year 7,000 tons have been ordered at very low prices.

The Perth Amboy Branch has been finished to the Raritan River and the bridge over that river is now ready for the superstructure. The work on the New York & Long Branch road proper is being pushed, the inhabitants having subscribed the sum required, and it is hoped that the road will be open in June next.

The controversy with the State of New Jersey as to riparian rights has been finally settled and title acquired to all the State's rights in the terminal property at Jersey City and Communipaw.

The Lehigh & Wilkesbarre Coal Company has devoted the

LOCOMOTIVE RETURNS, OCTOBER, 1874.

Master Mechanics of all American railroads are invited to send us their monthly reports for this table.

NAME OF ROAD.	Number of Locomotives in service.	Mileage.	No. Miles run to	Cost per Mile in Cents for	Average cost of
Allegheny Valley (September)	62	147,120	41.20	5.69	4.31
Atlantic & Great Western (First & Second Div.)	229	213,734	41.07	4.66	6.25
" " (Third & Fourth Div.)	208	107,145	41.07	5.04	6.25
" " (Mahoning Division)	113	155,238	41.07	2.85	6.25
" " (Shenango & Allegheny)	33	17,573	59.16	3.97	5.70
California Pacific	119	119,051	38.25	7.94	20.75
Central Pacific (Western Division)	119	99,292	29.52	8.55	16.19
" " (Sacramento Division)	119	40	29.52	12.73	18.48
" " (Truckee Division)	204	26	37.30	4.10	17.67
" " (Humboldt Division)	236	21	61.68	6.70	17.96
" " (Salt Lake Division)	182	23	68.317	8.66	11.97
" " (Oregon Division)	151	43	6	7.67	16.46
" " (Visalia Division)	188	10	25,498	4.99	7.71
Chicago, Burlington & Quincy	298	780,281	35.95	3.57	6.81
Chicago, Rock Island & Pacific (Illinois Div.)	92	207,340	37.01	2.74	7.00
" " (Iowa Division)	92	199,115	35.09	3.68	6.61
" " (Southwestern Div.)	47	131,077	37.92	2.86	6.82
Cleve., Col., Cin. & Ind. (Columbus Div.)	138	55	142,438	4.07	7.21
" " (Indianapolis Div.)	207	64	204,913	3.19	6.64
" " (Cincinnati Div.)	130	28	77,554	4.73	4.49
Cleveland & Pittsburgh	85	171,585	54.08	9.01	4.97
Del., Lacka. & West. (Bloomburg Div.)	80	23	54,125	1.77	7.43
" " (Morris & Essex Div.)	15,586	47.34	15.56	4.08	8.11
Denver Pacific	33	83,698	55.53	3.93	5.01
Flint & Pere Marquette	173	178,167	41.57	5.99	5.99
Illinois Central (Chicago Division)	23	75	13,545	8.09	6.58
" " (North Division)	225	40	112,597	7.04	7.15
" " (Iowa Division)	401	45	123,145	4.03	7.14
Indianapolis, Bloomington & Western	344	63	146,655	6.50	9.97
Indianapolis & St. Louis	141	595	41.00	7.00	7.50
Kansas Pacific	191	627	38.38	5.50	9.97
Kansas City, St. Joseph & Council Bluffs	22	64,232	43.70	7.00	7.50
Lake Shore & Michigan South. (Buffalo Div.)	114	178,167	46.37	5.30	7.54
" " (Erie Div.)	79	162,941	34.45	5.37	8.06
" " (Toledo Div.)	211	448,101	39.00	5.35	9.66
" " (Mich. South Div.)	182	77,427	46.00	6.15	10.70
Louisville, Cincinnati & Lexington	182	77,427	46.00	6.15	10.70
Leavenworth, Lawrence & Galveston	182	77,427	46.00	6.15	10.70
Northern Central (Elmira & Canandaigua Div.)	119	9	14,241	5.31	8.43
Pennsylvania (New York Division)	154	2	263,943	5.30	13.00
" " (Albany Division)	154	2	98,076	6.60	9.40
" " (Baltimore Division)	102	32	102,549	3.40	10.50
" " (Philadelphia Division)	204	157	401,549	4.40	6.80
" " (Middle Division)	131	6	307,458	5.90	8.00
" " (Pittsburgh Division, East End)	63	137,700	24.44	10.20	8.60
" " (Pittsburgh Division, West End)	102	263,527	33.62	12.70	6.00
" " (Tyrona Division)	100	25	47,988	7.90	7.60
" " (West Pennsylvania Division)	103	37	50,191	6.90	5.00
" " (Lewistown Division)	62	7	16,366	3.20	3.90
" " (Bedford Division)	56	4	6,848	0.80	3.00
Pitts., Fort Wayne & Chicago (Eastern Div.)	468	178	433,670	3.96	5.85
" " (Western Div.)	280	111	261,563	4.30	5.40
Pitts., Cin. & St. Louis (Little Miami Div.)	41	112,927	38.10	5.20	6.40
South Carolina	242	38	91,562	6.27	5.96
Stockton & Copperopolis	49	8	4,664	1.08	8.20
Toledo, Peoria & Warsaw	248	45	88,926	6.80	5.80
Terre Haute & Indianapolis (Indianapolis Div.)	82	636	31.00	4.39	7.32
" " (Vandalia Div.)	11	22	32,550	6.37	5.39

* Three empty cars rated as two loaded ones.

† Switching engines allowed six miles per hour.

year to consolidating and amalgamating the large interests lately acquired and to building up a heavy trade. Its shipments already amount to nearly 2,500,000 tons, and it stands third among the great coal-producing companies in the amount brought to tide-water.

The receipts of the Lehigh and Delaware Division canals amounted to \$609,759.62; expenses and rental, \$590,114.84, leaving net profit, \$19,644.78.

The report says: "By agreement with the Delaware, Lackawanna & Western Railroad Company, its business will be entirely withdrawn on April 1, when the third rail will be removed from the tracks. As will be noticed, their coal tonnage over the road has been reduced to a few hundred thousand tons. The Lehigh Valley Railroad also expects to open its new road to Perth Amboy within the year, when what remains of their coal tonnage—also much reduced—will be withdrawn.

"In parting with our ancient allies, it is pleasant to add that friendly relations prevail and will be preserved, and that the business of each separately has grown to a volume more than equal to what it at of the three companies united formerly amounted to."

The profit and loss account stands as follows:

Gross earnings.....	\$8,589,630 82
Balance canal earnings.....	19,644 78
Ordinary expenses.....	\$4,140,601 18
Rental Lehigh & Susquehanna.....	1,128,433 83
Interest account.....	807,406 26
State taxes.....	76,465 01
Dividend account.....	2,000,000 00
Balance to credit of reserve fund.....	\$456,360 32

The reserved fund of surplus profits now amounts to \$1,127,879.77. The usual quarterly dividends of 2 1/2 per cent. have been paid.

A consolidated mortgage to secure bonds amounting in the whole to \$25,000,000 has been executed during the year. After a reservation by its terms of a sufficient amount to exchange or pay at maturity the bonds prior to it in lien, amounting to \$5,774,000, the balance can be created from time to time as required.

Of these bonds, \$10,000,000 have been created during the year, as 7 per cent. currency bonds, with interest coupons payable quarterly, and \$6,063,900 appears credited to that account, leaving \$3,936,100 still to be received from Brown Bros. & Co., to whom the second issue of \$5,000,000 were sold at par and interest without commission.

Only a moderate amount was required for the present uses of this company, as the bulk of the money paid in was used to assist the Lehigh & Wilkesbarre Coal Company, by the temporary purchase of \$5,000,000 of its mortgage bonds at 90 per cent., to be parted with hereafter when the money is needed.

The remainder will be used to pay for the steel rails ordered, for the liberal orders given for locomotives and equipment of all sorts at the extreme low prices of the day, and also for various works of construction.

During the past five years the company has risen from a simple carrier of other people's coal over a road 75 miles long, with a corresponding equipment, to be the owner or controller of 180 miles of main line, with numerous branches, reaching from the seaboard to the center of the anthracite region, and also the owner of a controlling interest in an immense body of coal lands competent to supply transportation for centuries to come. The coal tonnage now carried is mainly under the control of the company and passes over the whole length of its line.

The increase in investment during the five years was as follows:

Capital stock, increase.....	\$5,000,000 00
Funded debt, increase.....	12,607,900 00
Bonds of other companies assumed.....	3,497,284 41
Undivided profits expended.....	1,127,879 77

Total..... \$22,233,064 18

Of this amount \$10,280,138.26 is invested in stock and bonds of the Lehigh & Wilkesbarre Coal Company; the remainder has been invested in new branches, improvements of road, new equipment and buildings, and increased terminal facilities.

The capital account at the close of the year stood as follows:

Capital stock.....	\$20,000,000 00
Bonds due 1890.....	\$5,000,000 00
Convertible bonds.....	4,770,000 00
Consolidated bonds.....	6,063,900 00
Bonds due 1875, still outstanding.....	174,000 00
Newark Branch bonds, due 1887.....	6,000 00
Lehigh Coal & Navigation loan, due 1897 (assumed).....	2,310,000 00
Railroad car trust of Philadelphia (assumed).....	380,725 00

Total funded debt..... \$19,248,625 00

Total..... \$39,248,625 00

Besides the road and equipment owned, the company has \$5,786,138 invested in stock and \$4,500,000 in bonds of the Lehigh & Wilkesbarre Coal Company and \$1,500,000 in stock of the American Dock & Improvement Company; a total of \$11,786,138.

Housatonic.

This company works a main line from Bridgeport, Conn., northward to Pittsfield, Mass., 110 miles, with branches from Van Dusenville, Mass., to State Line, 10 1/2 miles, and from Brookfield Junction to Danbury, Conn., 5 1/2 miles, making 126 miles in all. The line owned is from Bridgeport north to the Massachusetts line, 74 miles, the remainder being leased.

The equipment of the road consists of 19 engines, 26 passenger train and 409 freight train cars. Two engines and two mail and smoking cars were purchased during the year.

The earnings for the year ending September 30 were as follows:

	1874.	1873.
Earnings from passengers.....	\$207,330	.....
Freight and milk.....	458,242	.....
Other sources.....	29,008	.....

Total earnings..... \$694,580

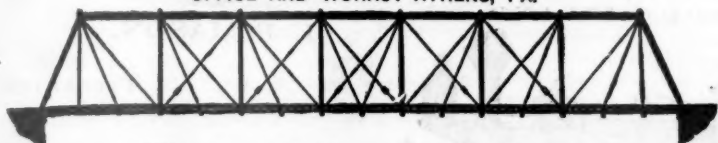
Operating expenses..... 464,864

Net earnings..... \$229,716

Gross earnings per mile..... 5.513

Net earnings per mile..... 1.823

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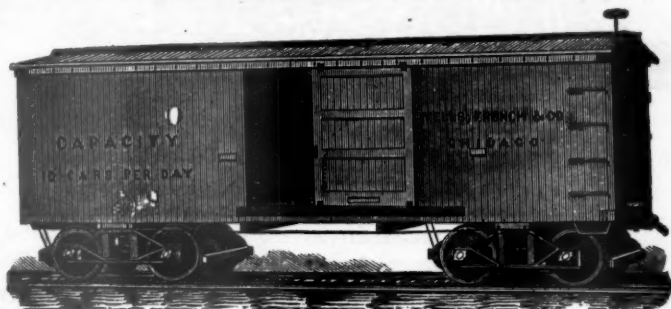


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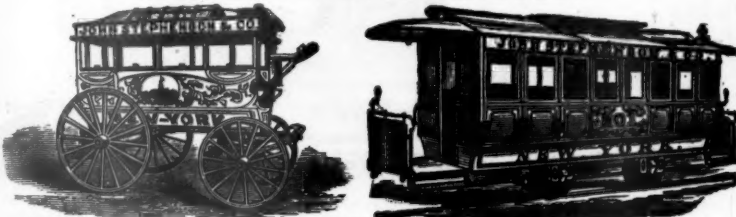
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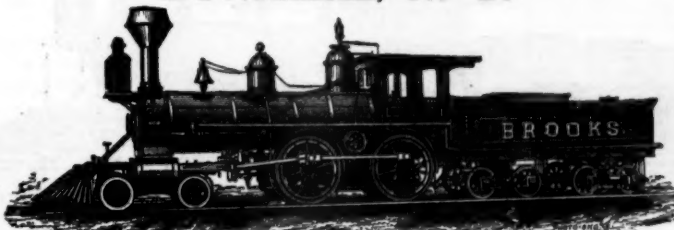
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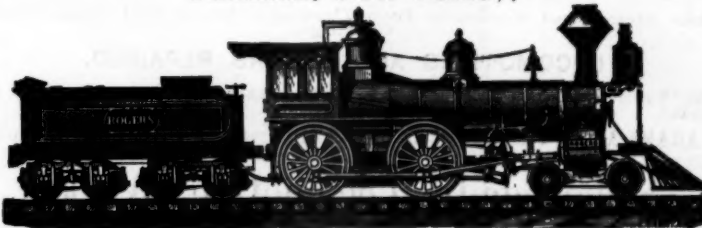


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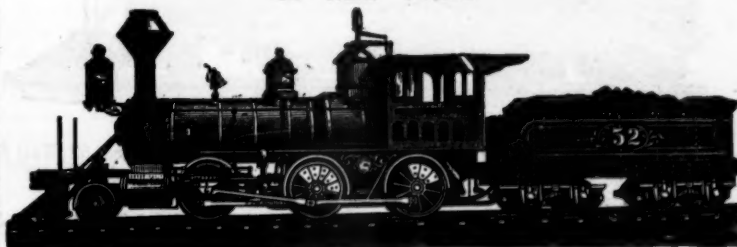
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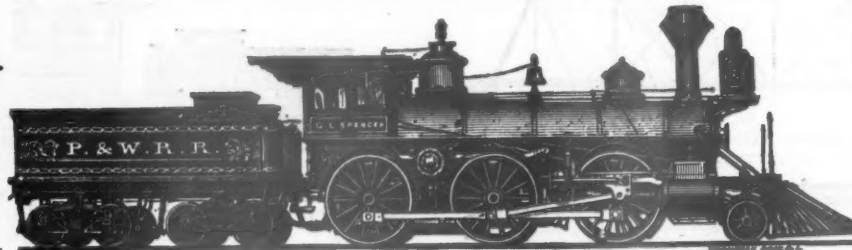
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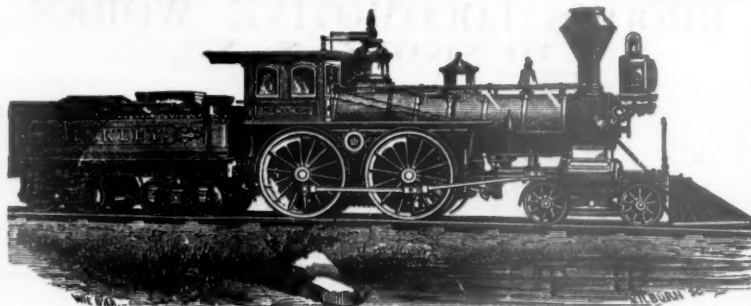
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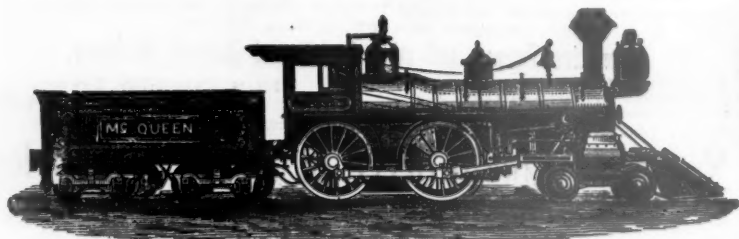
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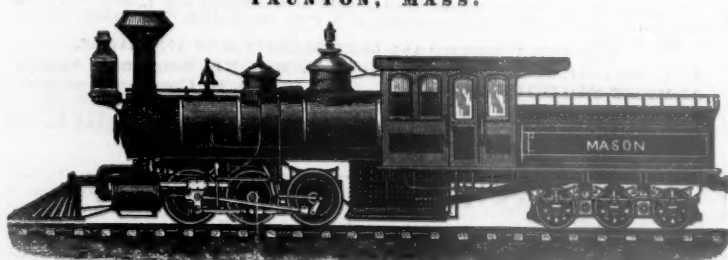
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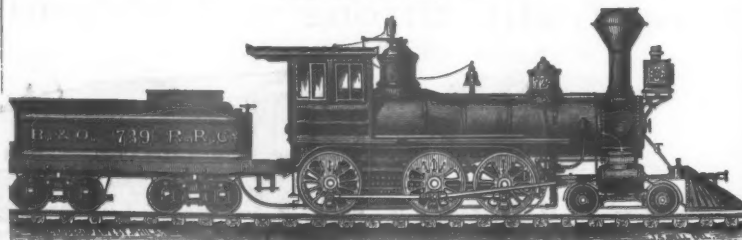
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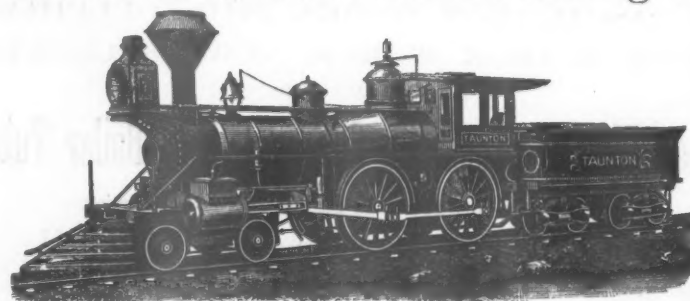
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